

J U N E 2 0 1 1

**A DATA BOOK**

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Health Care Spending  
and the  
Medicare Program



## Introduction

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MedPAC's Data Book is the result of discussions with congressional staff members regarding ways that MedPAC can better support them. It contains the type of information that MedPAC provides in publications like the March and June reports; it also combines data from other sources, such as CMS. The format is condensed into tables and figures with brief discussion. Website links to MedPAC publications and other websites are included on a "Web links" page at the end of each section.

The Data Book provides information on national health care and Medicare spending as well as Medicare beneficiary demographics, dual-eligible beneficiaries, quality of care in the Medicare program, and Medicare beneficiary and other payer liability. It also examines provider settings—such as hospitals and post-acute care—and presents data on Medicare spending, beneficiaries' access to care in the setting (measured by the number of beneficiaries using the service, number of providers, volume of services, length of stay, or through direct surveys) and the sector's Medicare profit margins, if applicable. In addition, it covers the Medicare Advantage program and prescription drug coverage for Medicare beneficiaries, including Part D.

Several charts in this Data Book use data from the Medicare Current Beneficiary Survey (MCBS). We use the MCBS to compare beneficiary groups with different characteristics. The MCBS is a survey, so expenditure amounts that we show may not match actual Medicare expenditure amounts.

Changes in aggregate spending among the fee-for-service sectors presented in this Data Book reflect changes in Medicare enrollment between the traditional fee-for-service program and Medicare Advantage. Increased enrollment in Medicare Advantage may be a significant factor in instances in which Medicare spending in a given sector has leveled off or even declined. In these instances, fee-for-service spending per capita may present a more complete picture of spending changes.

We produce a limited number of printed copies of this report. It is, however, available through the MedPAC website: [www.medpac.gov](http://www.medpac.gov).



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SECTION

1

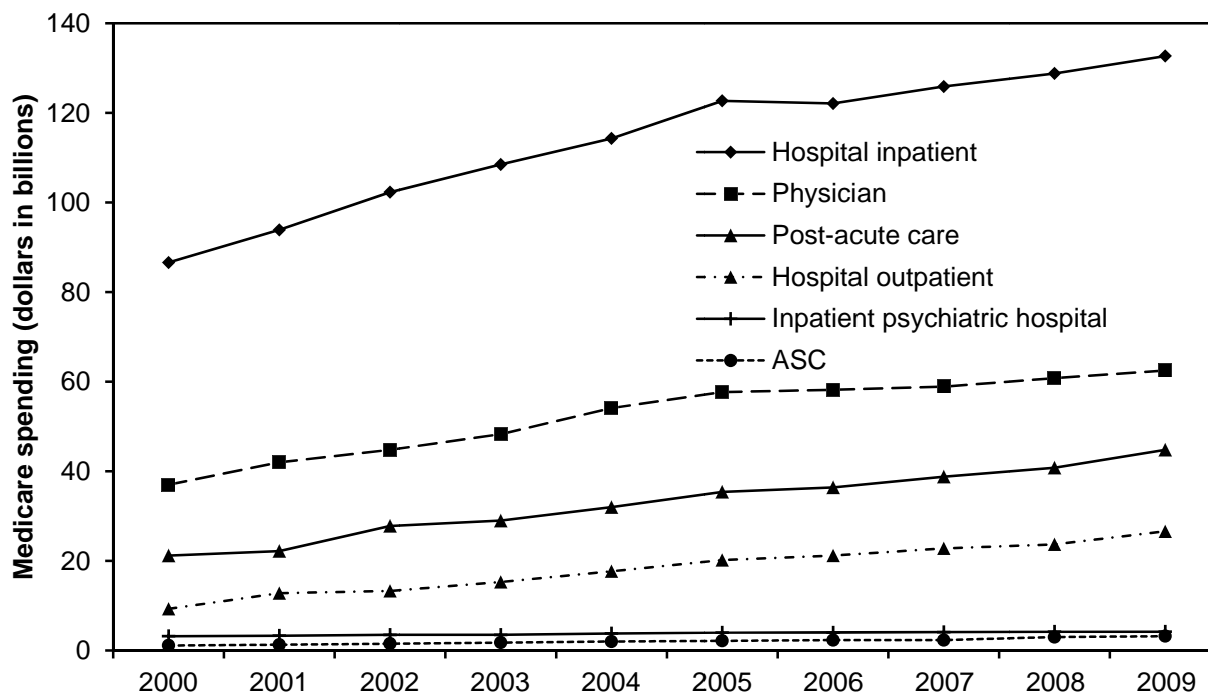
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**National health care and  
Medicare spending**

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**Chart 1-1. Aggregate Medicare spending among FFS beneficiaries, by sector, 2000–2009**

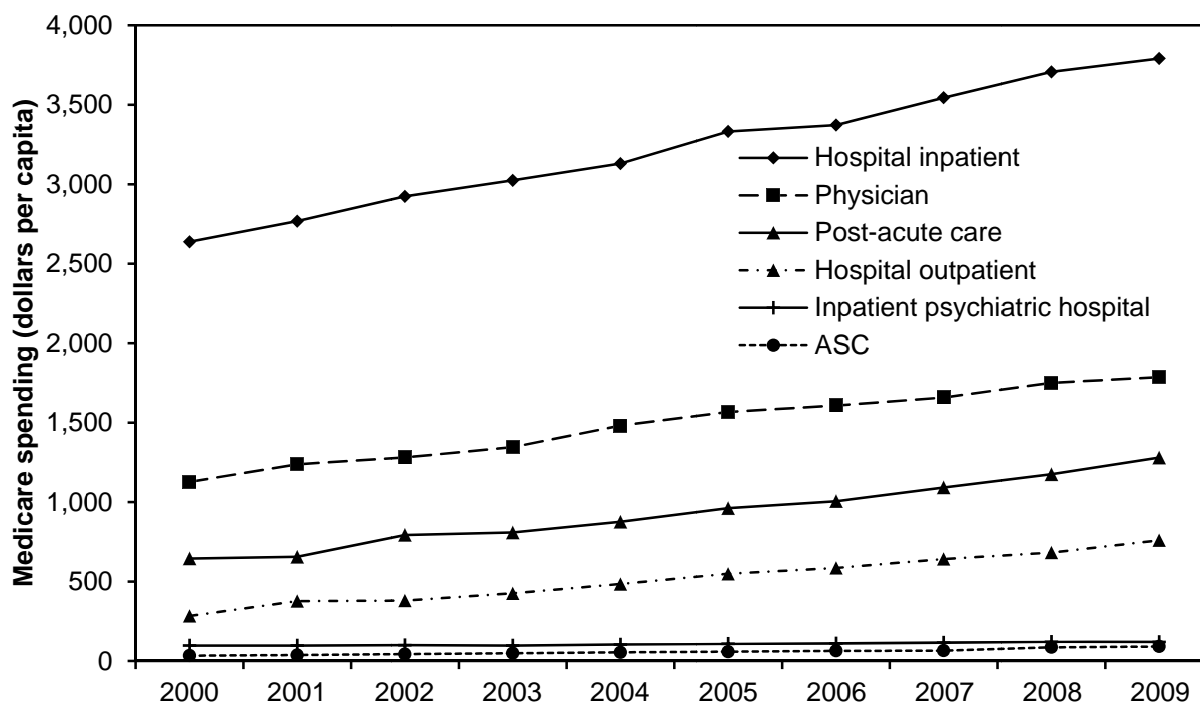


Note: FFS (fee-for-service), ASC (ambulatory surgical center). Dollars are Medicare spending only and do not include beneficiary cost sharing. The growth in spending slowed between 2006 and 2008 due to large increases in the number of Medicare Advantage enrollees, whose spending is not included in these aggregate totals.

Source: CMS, Office of the Actuary and the 2011 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Medicare spending among fee-for-service (FFS) beneficiaries grew strongly in most sectors from 2000 through 2004. Spending growth slowed slightly from 2005 to 2007 but rebounded in some sectors from 2008 to 2009. The slowing in aggregate spending from 2005 to 2007 is partially attributable to a decline in the number of FFS beneficiaries.

**Chart 1-2. Per capita Medicare spending among FFS beneficiaries, by sector, 2000–2009**

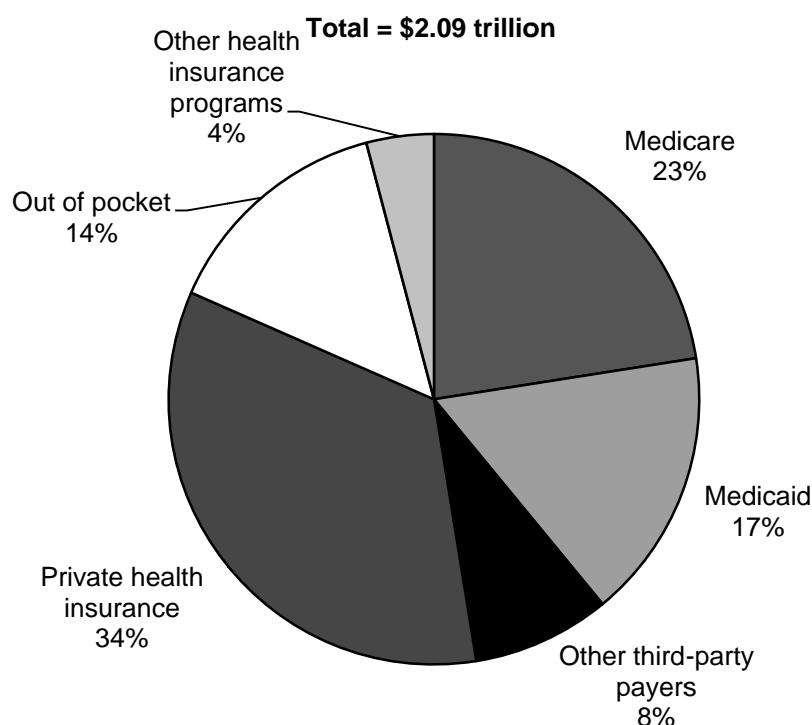


Note: FFS (fee-for-service), ASC (ambulatory surgical center). Dollars are Medicare spending only and do not include beneficiary cost sharing.

Source: CMS, Office of the Actuary and the 2011 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Medicare spending per beneficiary in fee-for-service Medicare increased steadily in most sectors from 2000 through 2009, with some sectors growing faster from 2006 to 2009.

**Chart 1-3. Medicare made up over one-fifth of spending on personal health care in 2009**

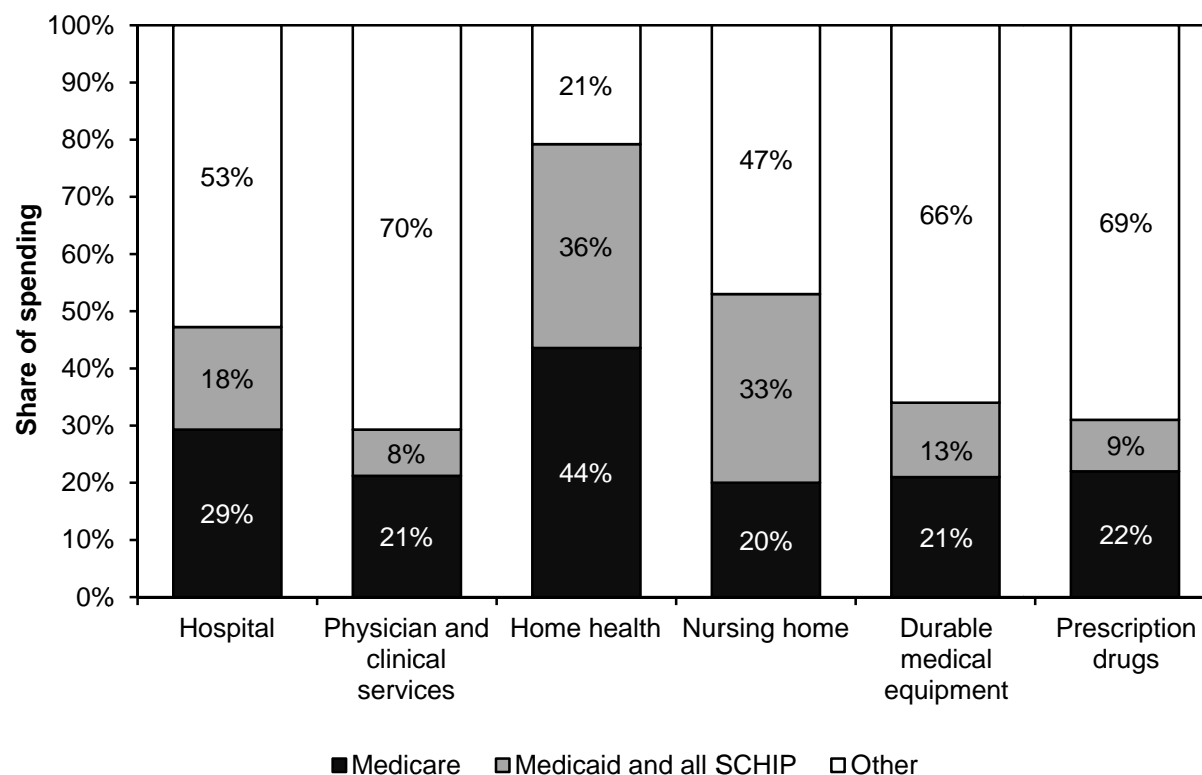


**Note:** Out-of-pocket spending includes cost sharing for both privately and publicly insured individuals. Personal health care spending includes spending for clinical and professional services received by patients. It excludes administrative costs and profits. Premiums are included with each program (e.g., Medicare, private insurance) rather than in the out-of-pocket category. Other health insurance programs include the Children's Health Insurance Program, Department of Defense, and Department of Veterans' Affairs. Other third-party payers include worksite health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs, Substance Abuse and Mental Health Services Administration, other state and local programs, and school health.

**Source:** CMS, Office of the Actuary, National Health Expenditure Accounts, 2011.

- Of the \$2.09 trillion spent on personal health care in the United States in 2009, Medicare accounted for 23 percent, or \$502 billion (as noted above, this amount includes direct patient care spending and excludes certain administrative and business costs). Medicare is the largest single purchaser of health care in the United States. Thirty-four percent of spending was financed through private health insurance payers and 14 percent was from consumer out-of-pocket spending.
- Medicare and private health insurance spending include premium contributions from enrollees.

**Chart 1-4. Medicare's share of total spending varies by type of service, 2009**



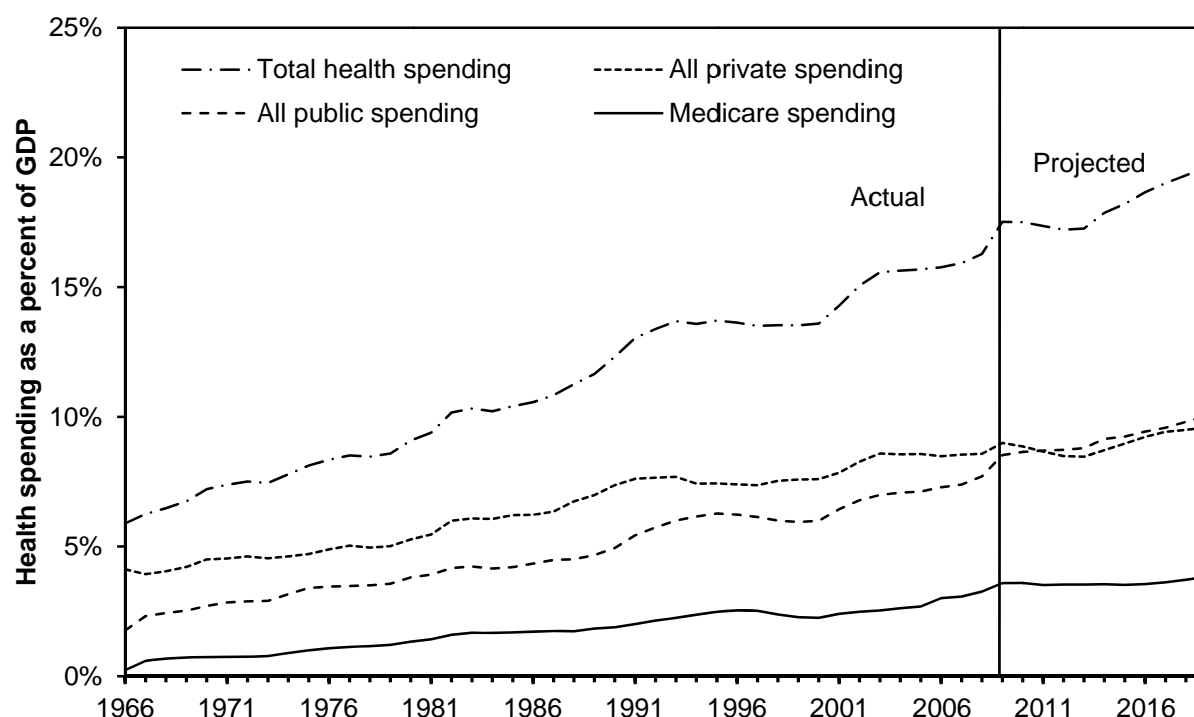
Note: SCHIP (State Children's Health Insurance Program). Personal health spending includes spending for clinical and professional services received by patients. It excludes administrative costs and profits. Totals may not sum to 100 percent due to rounding. "Other" includes private health insurance, out-of-pocket spending, and other private and public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2011.

- The level and distribution of spending differ between Medicare and other payers, largely because Medicare covers an older, sicker population and does not cover services such as long-term care.
- In 2009, Medicare accounted for 29 percent of spending on hospital care, 21 percent of physician and clinical services, 44 percent of home health services, 20 percent of nursing home care, 21 percent of durable medical equipment, and 22 percent of prescription drugs.



**Chart 1-5. Health care spending has grown more rapidly than GDP, with public financing making up nearly half of all funding**

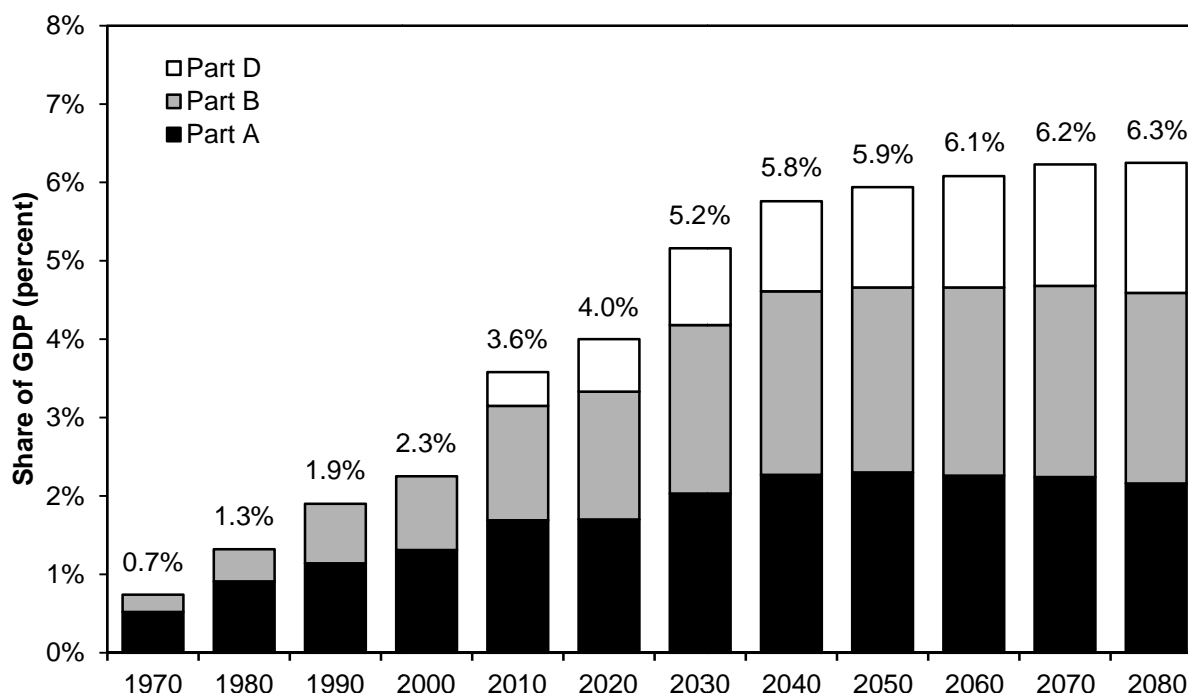


Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2011.

- Total health spending consumes an increasing proportion of national resources, accounting for a double-digit share of gross domestic product (GDP) annually since 1982.
- As a share of GDP, total health spending has increased from about 6 percent in 1965 to about 18 percent in 2009. It is projected to reach 20 percent of GDP in 2019. Health spending's share of GDP was stable throughout much of the 1990s due to slower spending growth associated with greater use of managed care techniques and higher enrollment in managed plans as well as a strong economy.
- Medicare spending has also grown as a share of the economy from less than 1 percent when it was started in 1965 to about 3.6 percent today. Projections suggest that Medicare spending will make up 4 percent of GDP by 2019.
- In 2009, all public spending made up about 49 percent of total health care spending and private spending made up 51 percent. By 2019, those percentages are projected to be 51 percent and 49 percent, respectively.

**Chart 1-6. Trustees project Medicare spending to increase as a share of GDP**

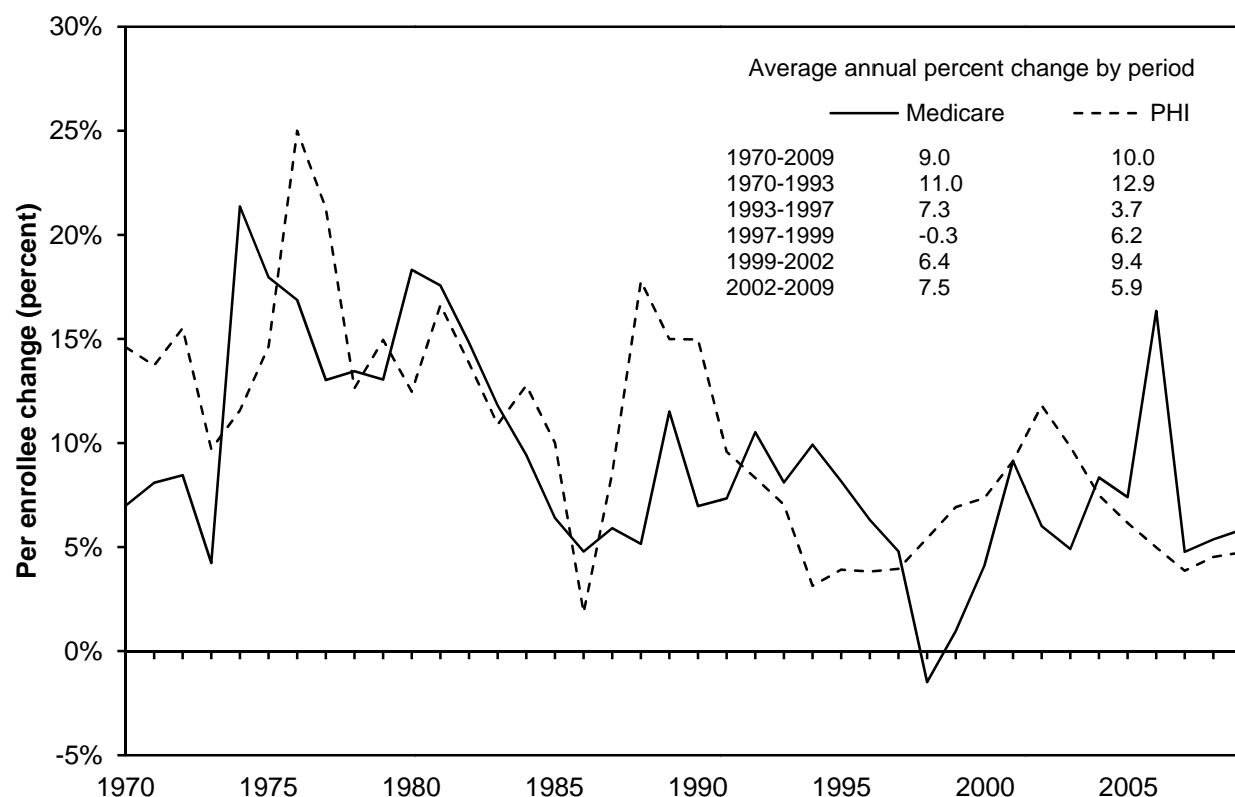


Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions.

Source: 2011 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Over time, Medicare spending has accounted for an increasing share of gross domestic product (GDP). From less than 1 percent in 1970, it is projected to reach over 6 percent of GDP in 2080.
- Nominal Medicare spending grew on average 9.2 percent per year over the period from 1980 to 2010, considerably faster than nominal growth in the economy, which averaged 5.7 percent per year over the same time frame. Future Medicare spending is projected to continue growing faster than GDP, averaging 5.5 percent per year between 2010 and 2080 compared with an annual average growth rate of 4.6 percent for the economy as a whole. In other words, Medicare spending is projected to continue rising as a share of GDP but at a slower pace.
- Medicare's share of GDP is projected to reach 6.3 percent in 2080. This amount is significantly smaller than the projection of Medicare's share of GDP before enactment of the Patient Protection and Affordable Care Act of 2010 (PPACA). Under prior law, in 2009 the Trustees estimated that Medicare's share of GDP would reach 11.2 percent by 2080. This difference is largely due to the permanent productivity adjustments for most providers enacted in PPACA.
- Beginning in 2010, the aging of the baby-boom generation, an expected increase in life expectancy, and the Medicare drug benefit are likely to increase the proportion of economic resources devoted to Medicare, growing from 3.6 percent of GDP in 2010 to 5.8 percent of GDP by 2040. Additional factors such as innovation in medical technology and the widespread use of insurance (which shields individuals from facing the full price of services) will also contribute to increases in health care spending.

**Chart 1-7. Changes in spending per enrollee, Medicare and private health insurance**

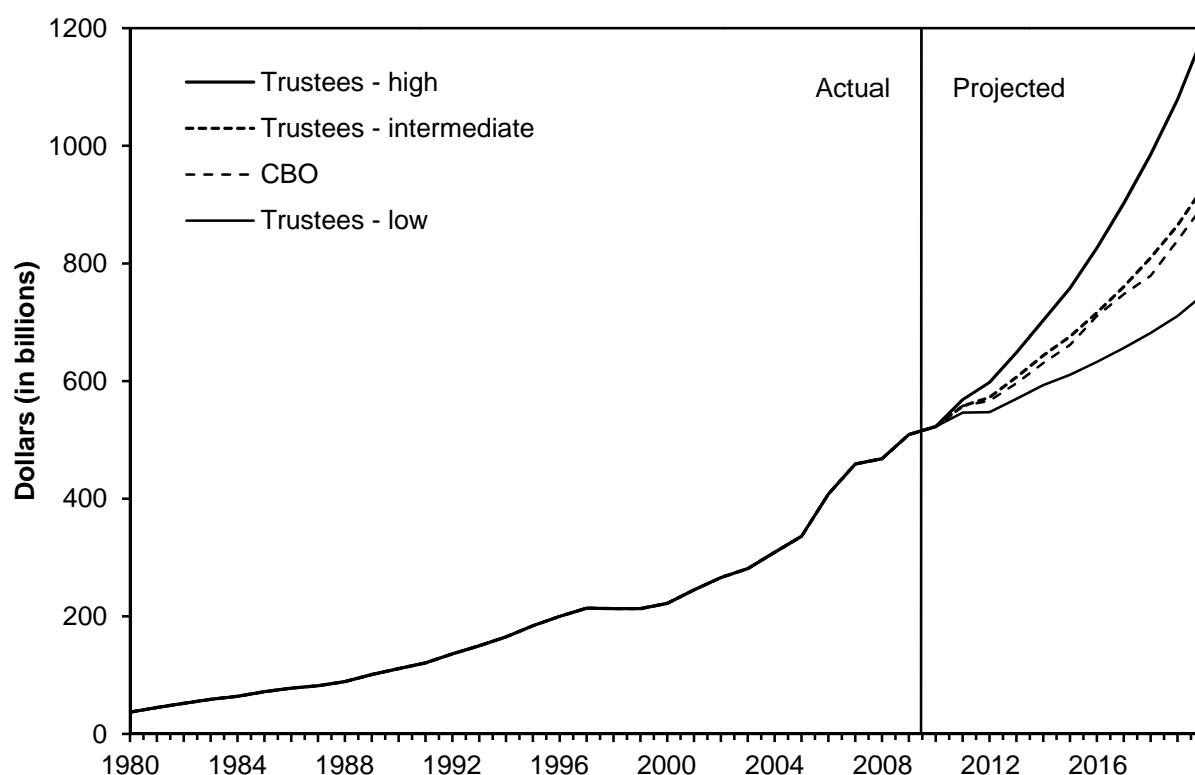


Note: PHI (private health insurance). In most years in this period Medicare and PHI do not cover the same services. Medicare expenditures include both fee-for-service and private plans.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2011.

- Although rates of growth in per capita spending for Medicare and private insurance often differ from year to year, over the long term they have been quite similar. However, this comparison is sensitive to the end points of time one uses for calculating average growth rates. Also, private insurers and Medicare do not buy the same mix of services, and Medicare covers an older population that tends to be more costly. In addition, the data do not allow analysis of the extent to which these spending trends were affected by changes in the generosity of covered benefits and, in turn, changes in enrollees' out-of-pocket spending.
- Differences appear to be more pronounced since 1985, when Medicare began introducing the prospective payment system for hospital inpatient services. Some analysts believe that, since the mid-1980s, Medicare has had greater success at containing cost growth than private payers by using its larger purchasing power. Others maintain that, since the 1970s, benefits offered by private insurers have expanded and cost-sharing requirements declined. These factors make the comparison problematic, as Medicare's benefits changed little over the same period.

**Chart 1-8. Trustees and CBO project Medicare spending to grow at an annual average rate of between 5.5 percent and 6 percent over the next 10 years**

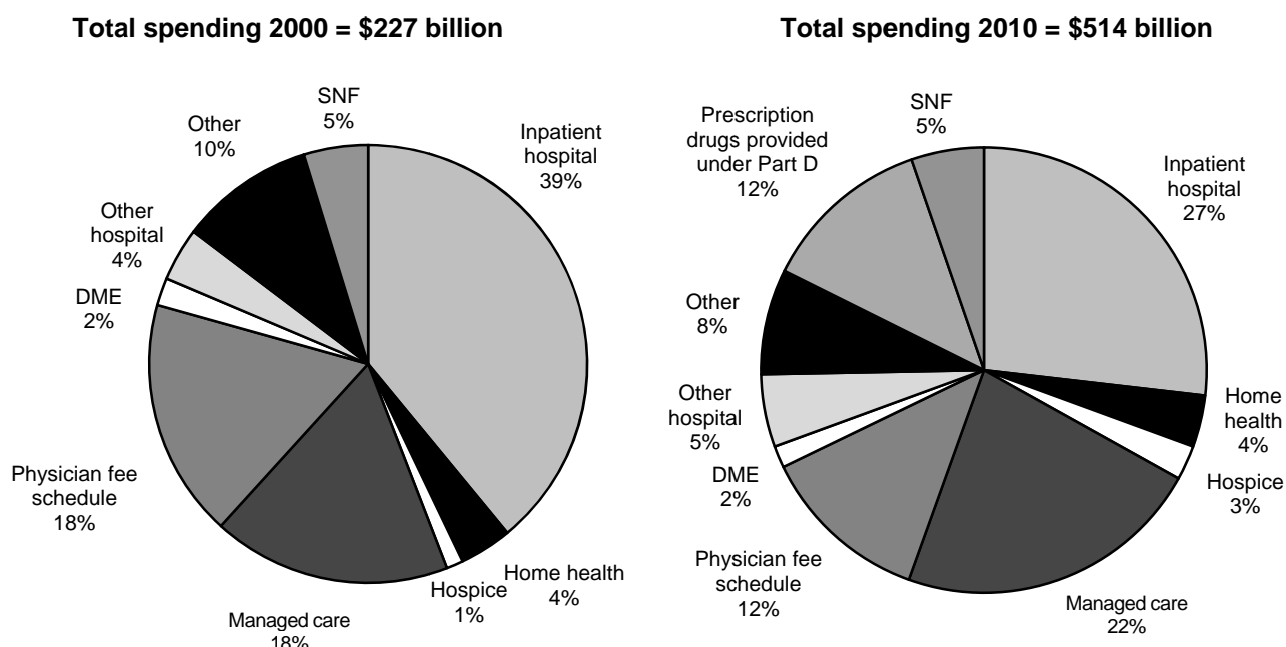


Note: CBO (Congressional Budget Office). All data are nominal, gross program outlays (mandatory plus administrative expenses) by calendar year.

Source: 2011 annual report of the Boards of Trustees of the Medicare Trust Funds. CBO March 2011 baseline.

- Medicare spending has grown nearly 13-fold, from \$37 billion in 1980 to \$509 billion in 2009 (see Chart 1-3; these data include benefit payments and administrative expenses).
- Medicare spending increased significantly after 2006 with the introduction of Part D, Medicare's voluntary outpatient prescription drug benefit.
- The Congressional Budget Office projects that mandatory spending for Medicare will grow at an average annual rate of 5.5 percent between 2011 and 2020. The Medicare trustees' intermediate projections for 2011 to 2020 assume 5.9 percent average annual growth. Forecasts of future Medicare spending are inherently uncertain, and differences can stem from different assumptions about the economy (which affect provider payment annual updates) and about growth in the volume and intensity of services delivered to Medicare beneficiaries, among other factors.

## Chart 1-9. Medicare spending is concentrated in certain services and has shifted over time

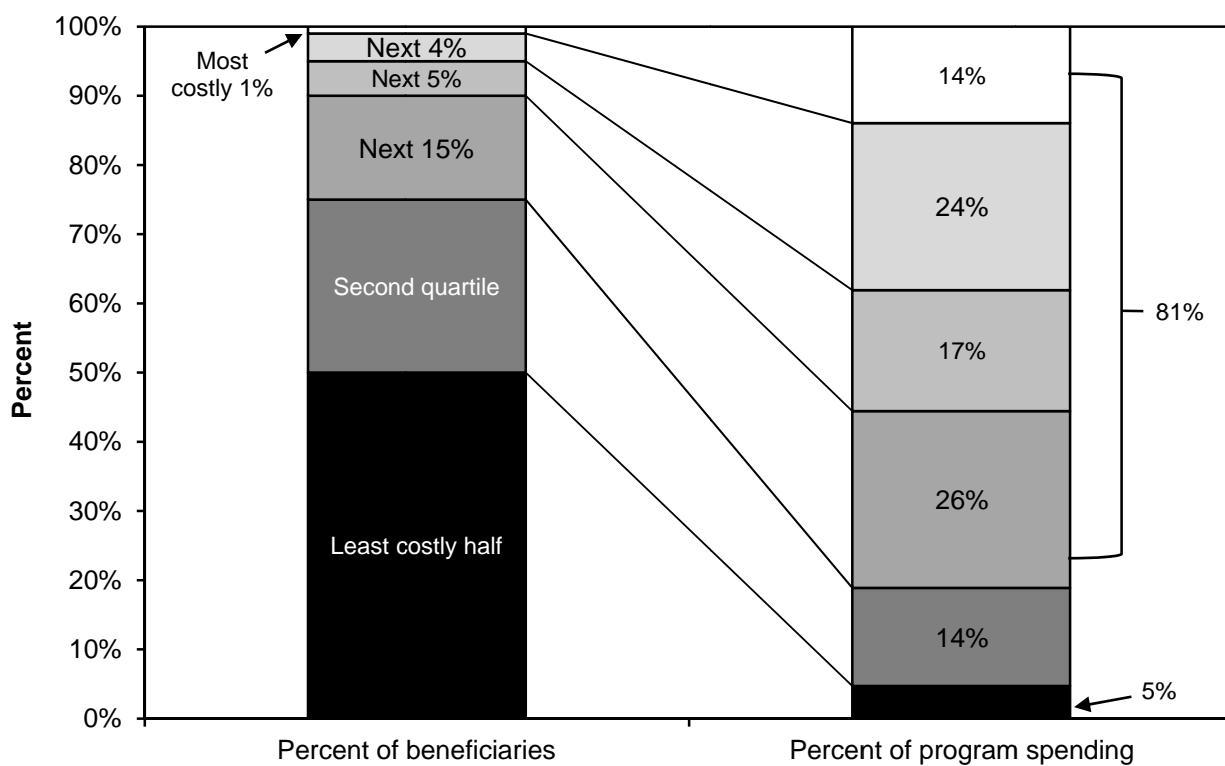


Note: SNF (skilled nursing facility), DME (durable medical equipment). Medicare's outpatient drug benefit began in 2006, and thus the distribution of spending for 2009 differs significantly from earlier years. Spending amounts are gross outlays, meaning that they include spending financed by beneficiary premiums but do not include spending by beneficiaries (or spending on their behalf) for cost-sharing requirements of Medicare-covered services. Values are reported on a fiscal year, incurred basis and do not include spending on program administration. "Other" includes carrier lab, other carrier, intermediary lab, and other intermediary. Totals may not sum to 100 percent due to rounding.

Source: 2012 President's Budget; CMS, Office of the Actuary, 2011.

- The distribution of Medicare spending among services has changed substantially over time.
- In 2010, Medicare spent about \$514 billion for benefit expenses. Inpatient hospital services were by far the largest spending category (27 percent), followed by managed care (22 percent), services reimbursed under the physician fee schedule (12 percent), outpatient prescription drugs provided under Part D (12 percent), and other fee-for-service settings (8 percent).
- Although inpatient hospital services still made up the largest spending category, spending for those services was a smaller share of total Medicare spending in 2010 than it was in 2000, falling from 39 percent to 27 percent. Spending on beneficiaries enrolled in managed care plans has grown from 18 percent to 22 percent over the same period. Current Medicare managed care enrollment is higher than it was a decade ago.

**Chart 1-10. FFS program spending is highly concentrated in a small group of beneficiaries, 2007**



Note: FFS (fee-for-service). Excludes beneficiaries with any group health enrollment during the year. Spending data reflect revised 2007 Medicare Current Beneficiary Survey Cost and Use file from CMS.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use files.

- Medicare fee-for-service (FFS) spending is concentrated among a small number of beneficiaries. In 2007, the costliest 5 percent of beneficiaries accounted for 38 percent of annual Medicare FFS spending and the costliest quartile accounted for 81 percent. By contrast, the least costly half of beneficiaries accounted for only 5 percent of FFS spending.
- Costly beneficiaries tend to include those who have multiple chronic conditions, those using inpatient hospital services, those who are dually eligible for Medicare and Medicaid, and those who are in the last year of life.

## Chart 1-11. Medicare HI trust fund is projected to be insolvent in 2024 under actuaries' intermediate assumptions

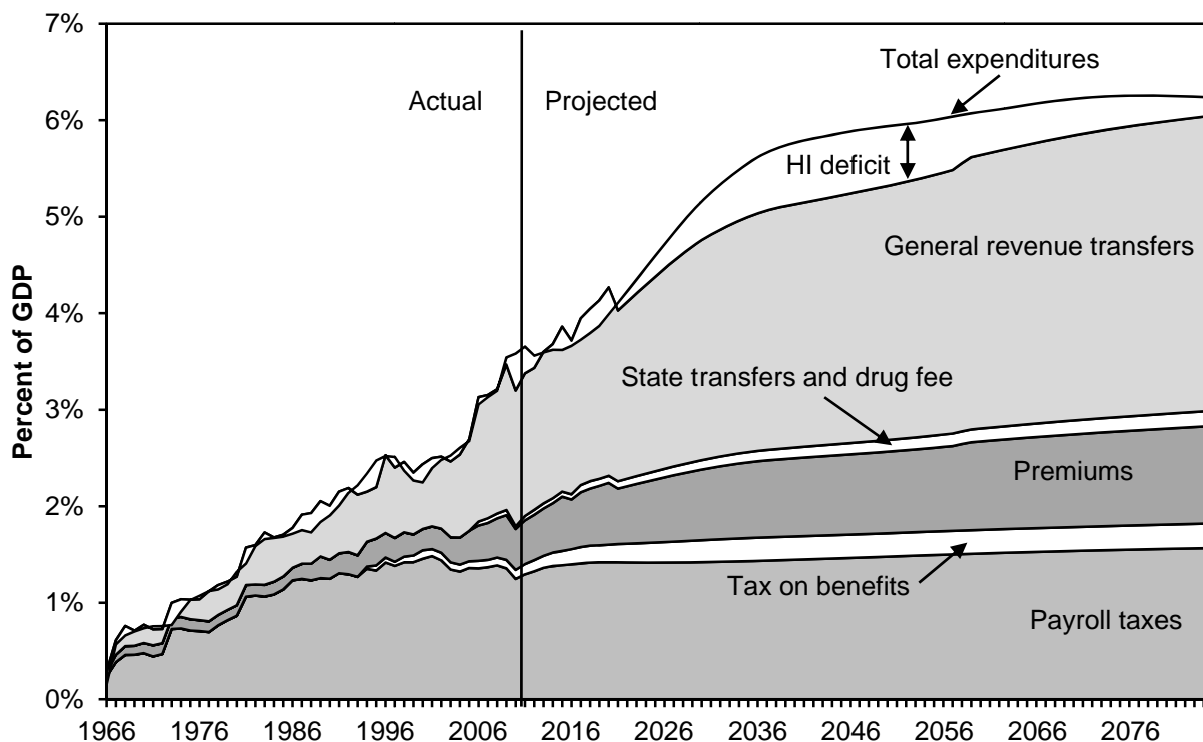
Estimate	Year costs exceed income	Year HI trust fund assets exhausted
High	2008	2016
Intermediate	2008	2024
Low	2008	Never*

Note: HI (Hospital Insurance). Income includes taxes (payroll and Social Security benefits taxes, railroad retirement tax transfer), income from the fraud and abuse program, and interest from trust fund assets.  
 \* Under the low-cost assumption, trust fund assets would start to increase in 2014 and continue to increase throughout the projection period.

Source: 2011 annual report of the Boards of Trustees of the Medicare Trust Funds; CMS, Office of the Actuary.

- The Medicare program is financed through two trust funds: one for Hospital Insurance (HI), which covers services provided by hospitals and other providers such as skilled nursing facilities, and one for Supplementary Medical Insurance (SMI) services, such as physician visits and Medicare's new prescription drug benefit. Dedicated payroll taxes on current workers largely finance HI spending and are held in the HI trust fund. The HI trust fund can be exhausted if spending exceeds payroll tax revenues and fund reserves. General revenues finance roughly 75 percent of SMI services, and beneficiary premiums finance about 25 percent. (General revenues are federal tax dollars that are not dedicated to a particular use but are made up of income and other taxes on individuals and corporations.)
- The SMI trust fund is financed with general revenues and beneficiary premiums. Some analysts believe that the levels of premiums and general revenues required to finance projected spending for SMI services would impose a significant burden on Medicare beneficiaries and on growth in the U.S. economy.
- HI's expenses exceeded its income in 2008. In 2011, Medicare trustees report that under the intermediate assumptions the HI trust fund will be exhausted in 2024. Under high-cost assumptions, the HI trust fund could be exhausted as early as 2016. Under low-cost assumptions, it would remain able to pay full benefits indefinitely.

**Chart 1-12. Medicare faces serious challenges with long-term financing**



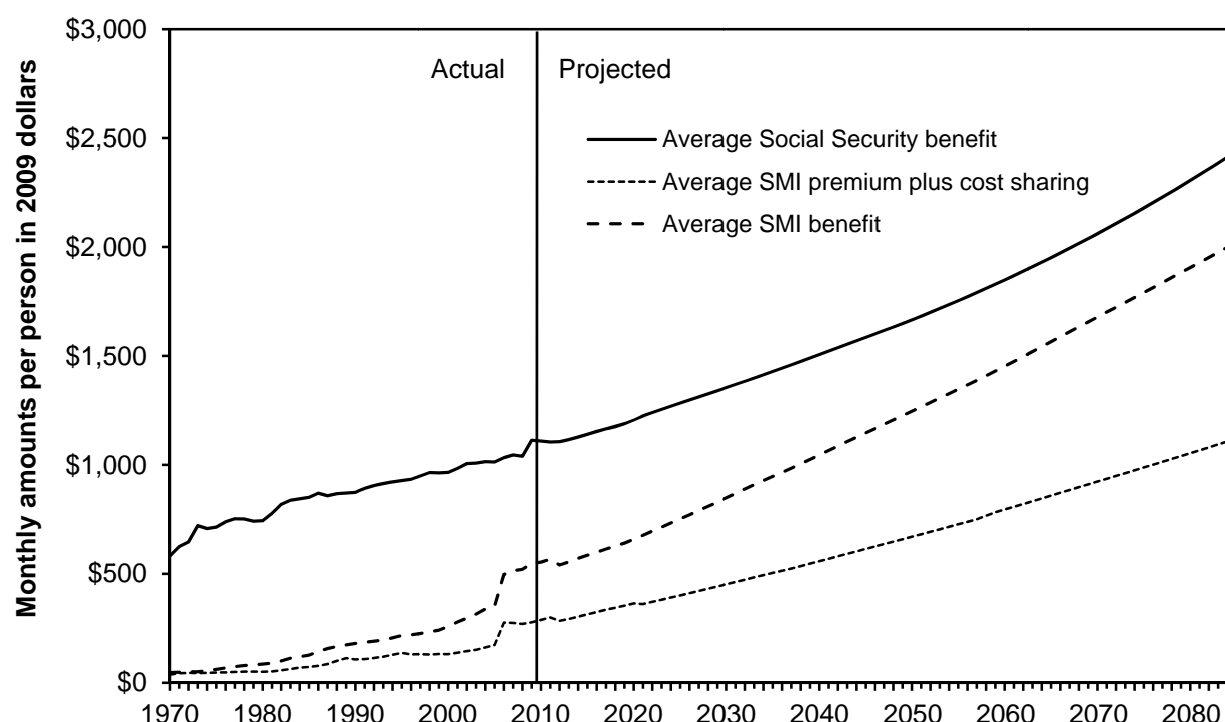
Note: GDP (gross domestic product), HI (Hospital Insurance). These projections are based on the trustees' intermediate set of assumptions. Tax on benefits refers to a portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. State transfers (often called the Part D "clawback") refer to payments called for within the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 from the states to Medicare for assuming primary responsibility for prescription drug spending. The drug fee refers to the fee imposed in the Patient Protection and Affordable Care Act of 2010 on manufacturers and importers of brand-name prescription drugs. These fees are deposited in the Part B account.

Source: 2011 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Under an intermediate set of assumptions, trustees project that Medicare spending will grow rapidly, from about 3.5 percent of gross domestic product (GDP) today to 5.8 percent by 2040 and to about 6.3 percent by 2080.
- Compared with the projections before the Patient Protection and Affordable Care Act of 2010 (PPACA), Medicare's expenditures are projected to be a significantly smaller share of the economy—6.3 percent of GDP in 2080 compared with 11.2 percent under prior law. This projection is largely due to the provisions in PPACA that put in place permanent adjustments for productivity for most providers. The actuaries also project that PPACA will increase revenues to the Medicare program due to an expansion of the Hospital Insurance payroll tax and other revenue provisions.



**Chart 1-13. Average monthly SMI premiums and cost sharing are projected to grow faster than the average monthly Social Security benefit**



Note: SMI (Supplementary Medical Insurance). Average SMI benefit and average SMI premium plus cost-sharing values are for a beneficiary enrolled in Part B and (after 2006) Part D. Beneficiary spending on outpatient prescription drugs before 2006 is not included.

Source: 2011 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Between 1970 and 2009, the average monthly Social Security benefit (adjusted for inflation) increased by an annual average rate of 1.7 percent. Over the same period, average Supplementary Medical Insurance (SMI) premiums plus cost sharing grew by an annual average of 5.3 percent, and the value of the total SMI benefit grew by an annual average of 6.5 percent. Between 2003 and 2009, Part B premium increases offset 54 percent of the dollar increase in the average Social Security benefit.
- Growth over time in Medicare premiums and cost sharing will continue to outpace growth in Social Security income. Medicare trustees project that between 2009 and 2040 the average Social Security benefit will grow by 1 percent annually (after adjusting for inflation), compared with about 2.5 percent annual growth in average SMI premiums plus cost sharing. However, the growth rate of the value of the SMI benefit as well as SMI premiums and cost sharing is lower than projected before enactment of the Patient Protection and Affordable Care Act of 2010 (PPACA). SMI premiums and cost sharing are projected to grow in inflation-adjusted terms by 2.5 percent annually between 2009 and 2040 compared with 2.8 percent under prior law. This change is a result of the PPACA provisions affecting SMI—the permanent productivity adjustments for some Part B providers and the changes in payments to Medicare Advantage plans.
- Most Medicare beneficiaries pay their Part B premium by having it withheld from their monthly Social Security benefit. The December 2011 cost-of-living adjustment for Social Security benefits is projected to be 0.9 percent. Under current hold-harmless policies, Medicare Part B premiums cannot increase by a larger dollar amount than the cost-of-living increase in a beneficiary's Social Security benefit. Some beneficiaries may have their Part B premium increase limited as a result of the hold-harmless provision if their Social Security benefit is relatively small.
- Twenty-five percent of Medicare beneficiaries are not protected under the hold-harmless provision. They include: new beneficiaries in Medicare who did not pay a premium in 2010, high-income beneficiaries who pay the income-related Part B premium, and Medicare beneficiaries who are also eligible for Medicaid. (For the last group, Medicaid pays for their Part B premiums.)

**Chart 1-14. Medicare HI and SMI program payments and cost sharing per beneficiary in 2009**

	Average program payment (in dollars)	Average cost-sharing amount (in dollars)
HI	\$4,861	\$428
SMI	\$4,644	\$1,188

Note: HI (Hospital Insurance), SMI (Supplementary Medical Insurance). Average program payments and cost-sharing amounts are for fee-for-service Medicare only and do not include Part D. Medicare program payments represent unadjusted amounts paid for covered services incurred during a calendar year under Medicare fee-for-service only and exclude payments for managed care services. Program payments differ from benefit payments, which reflect estimates of interim and retroactive adjustments made to institutional providers as well as payments for managed care.

Source: Medicare and Medicaid Statistical Supplement 2010, CMS Office of Information Services.

- In calendar year 2009, the Medicare program made \$4,861 in Hospital Insurance (HI) program payments and \$4,644 in Supplementary Medical Insurance (SMI) program payments on average per beneficiary.
- In the same year, beneficiaries owed an average of \$1,616 in Medicare cost sharing for HI and SMI.
- Most Medicare beneficiaries have supplemental coverage through former employers, medigap policies, Medicaid, or other sources that fill in much of Medicare's cost-sharing requirements.

## Web links. National health care and Medicare spending

- The Trustees' Report provides information on the financial operations and actuarial status of the Medicare program.

<http://www.cms.gov/ReportsTrustFunds/>

- The National Health Expenditure Accounts developed by the Office of the Actuary at CMS provide information about spending for health care in the United States.

<http://www.cms.gov/NationalHealthExpendData/>

- The Medicare and Medicaid Statistical Supplement developed by CMS provides statistical information about Medicare, Medicaid, and other CMS programs.

<https://www.cms.gov/MedicareMedicaidStatSupp/>

- CMS statistics provide information about Medicare beneficiaries, providers, utilization, and spending.

<http://www.cms.gov/DataCompendium/>

- MedPAC's March 2011 Report to the Congress provides an overview of Medicare and U.S. health care spending in Chapter 1, Context for Medicare Payment Policy.

[http://medpac.gov/chapters/Mar11\\_Ch01.pdf](http://medpac.gov/chapters/Mar11_Ch01.pdf)



SECTION

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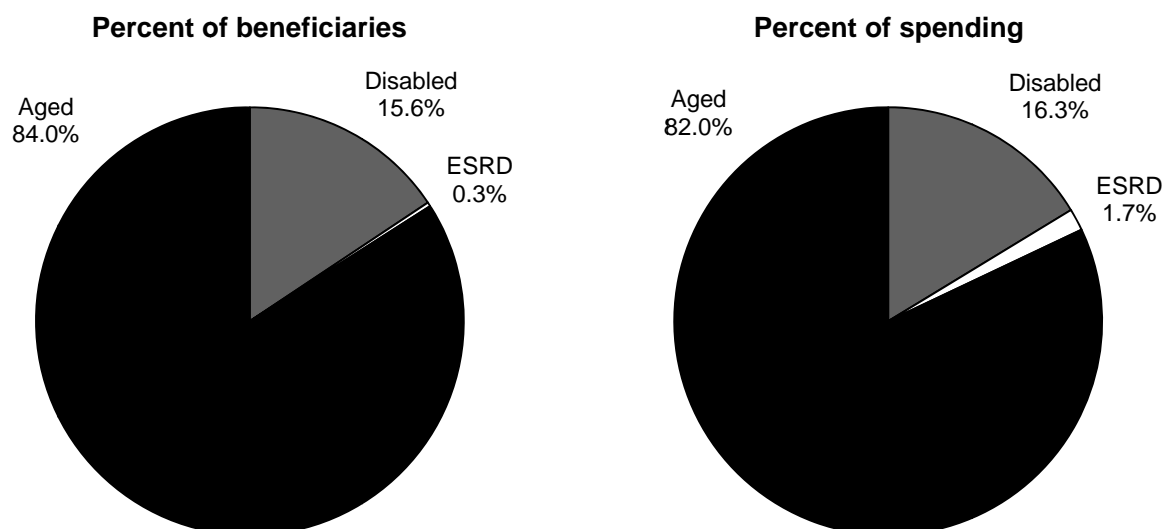
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**Medicare beneficiary  
demographics**

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**Chart 2-1. Aged beneficiaries account for the greatest share of the Medicare population and program spending, 2007**



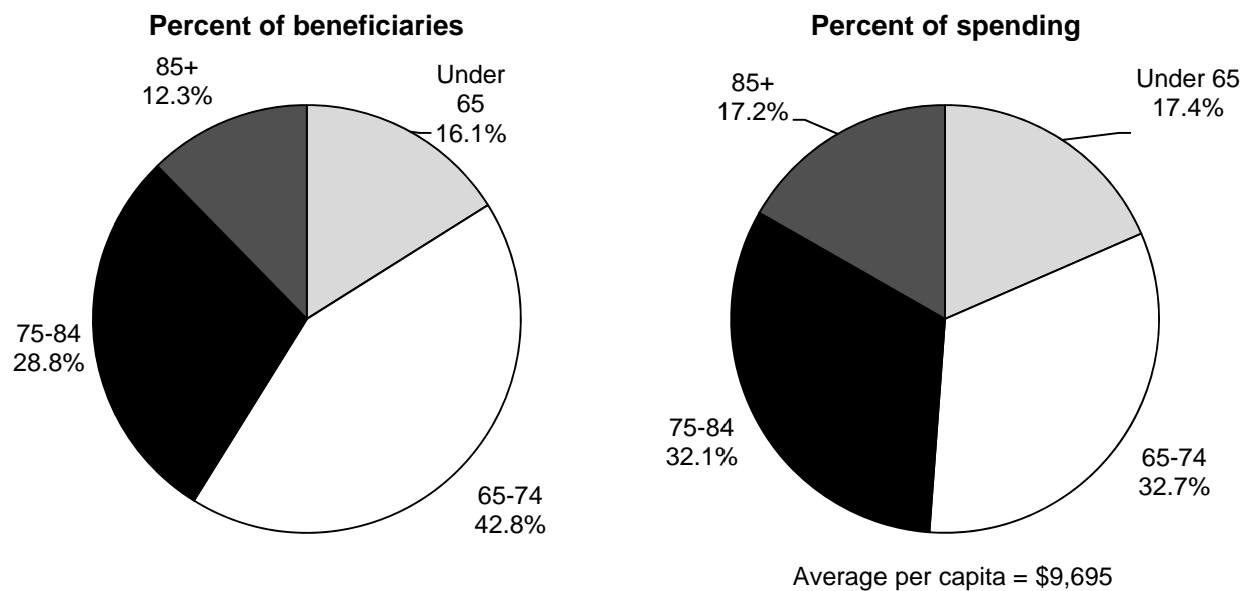
Note: ESRD (end-stage renal disease). ESRD refers to beneficiaries under age 65 with ESRD. The disabled category refers to beneficiaries under age 65 without ESRD. The aged category refers to beneficiaries age 65 or older. Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- In 2007, beneficiaries age 65 or older composed 84 percent of the beneficiary population and accounted for 82 percent of Medicare spending. Beneficiaries under age 65 accounted for the remaining population and spending.
- In 2007, average Medicare spending per beneficiary was \$9,695.
- On a per capita basis, a disproportionate share of Medicare expenditures is devoted to Medicare beneficiaries who are eligible due to end-stage renal disease (ESRD). On average, these beneficiaries incur spending that is more than five times greater than beneficiaries in other categories. In 2007, \$51,901 was spent per beneficiary enrolled due to ESRD versus \$9,417 per beneficiary enrolled due to age (including those with and without ESRD), and \$10,053 per (non-ESRD) beneficiary enrolled due to (non-ESRD) disability.
- Within the aged category, per capita spending for those with ESRD was \$54,997 versus \$9,150 for those without ESRD.

(The Medicare Current Beneficiary Survey may understate the ESRD population and its associated spending.)

**Chart 2-2. Medicare enrollment and spending by age group, 2007**



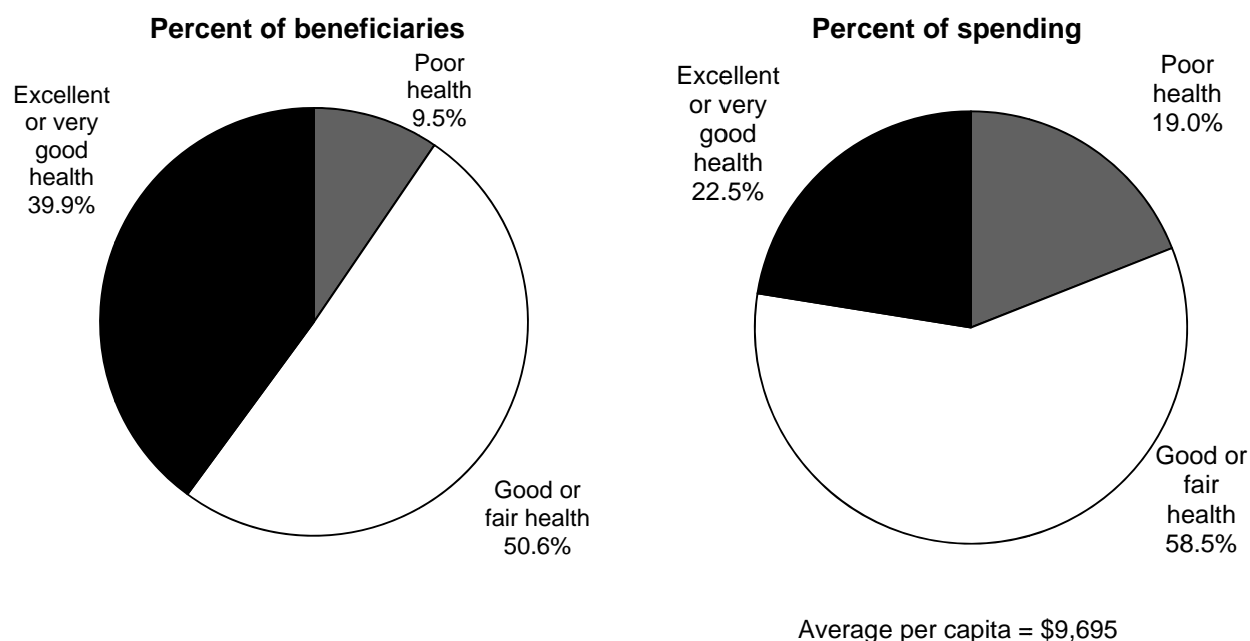
Note: Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- For the aged population (65 or older), per capita expenditures increase with age. Per capita expenditures were \$7,411 for beneficiaries ages 65 to 74, \$10,790 for those 75 to 84, and \$13,173 for those 85 or older.
- Per capita expenditures for Medicare beneficiaries under age 65 enrolled due to end-stage renal disease or disability were \$11,141.



**Chart 2-3. Beneficiaries who report being in poor health account for a disproportionate share of Medicare spending, 2007**

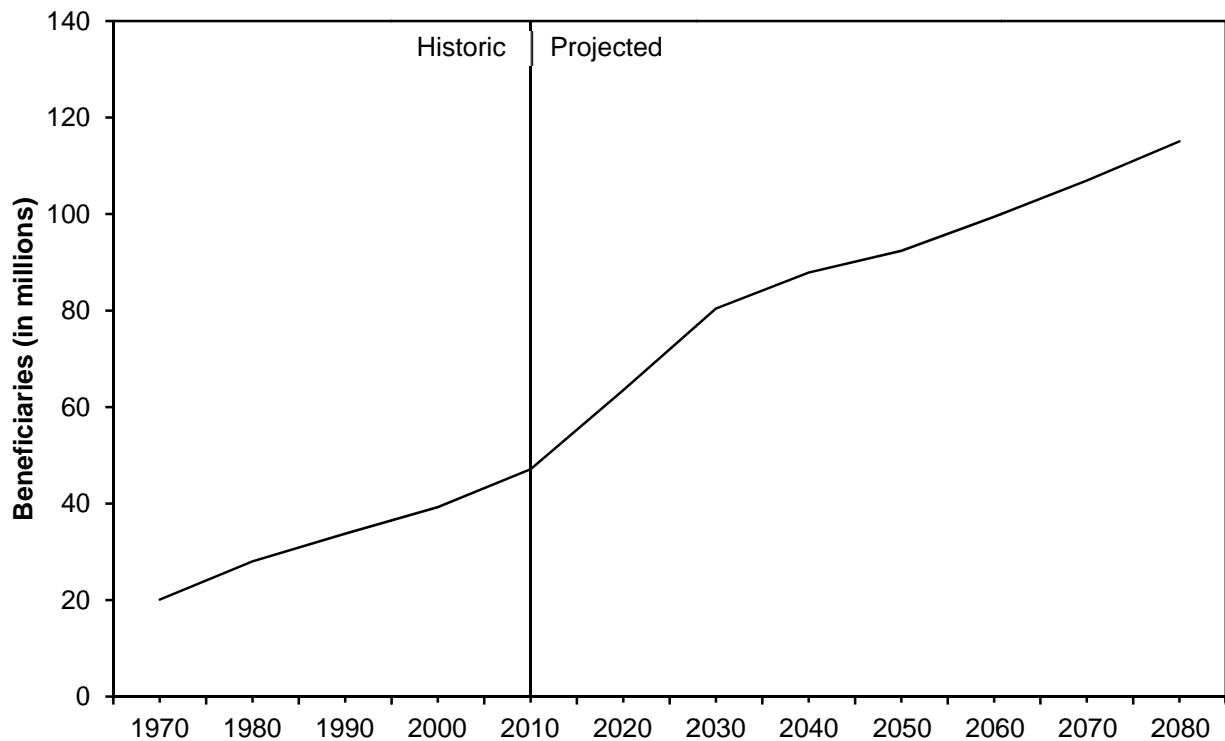


Note: Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- In 2007, most beneficiaries reported excellent to fair health. Fewer than 10 percent reported poor health.
- Medicare spending is strongly associated with self-reported health status. In 2007, per capita expenditures were \$5,447 for those who reported excellent or very good health, \$11,205 for those who reported good or fair health, and \$19,332 for those who reported poor health.

**Chart 2-4. Enrollment in the Medicare program is projected to grow rapidly in the next 20 years**



Note: Enrollment numbers are based on Part A enrollment only. Beneficiaries enrolled only in Part B are not included.

Source: CMS, Office of the Actuary, 2011.

- The total number of people enrolled in the Medicare program will double between 2000 and 2030, from about 40 million to 80 million beneficiaries.
- The rate of increase in Medicare enrollment will accelerate until 2030 as more members of the baby-boom generation become eligible and will slow around 2030 after the entire baby-boom generation has become eligible.

## Chart 2-5. Characteristics of the Medicare population, 2007

Characteristic	Percent of the Medicare population*	Characteristic	Percent of the Medicare population*
<b>Total</b> (44,982,416)	100%	<b>Living arrangement</b>	
<b>Sex</b>		Institution	6%
Male	45	Alone	29
Female	55	Spouse	47
		Other	18
<b>Race/ethnicity</b>		<b>Education</b>	
White, non-Hispanic	78	No high school diploma	26
African American, non-Hispanic	9	High school diploma only	31
Hispanic	8	Some college or more	43
Other	5		
<b>Age</b>		<b>Income status</b>	
<65	16	Below poverty	14
65–74	43	100–125% of poverty	9
75–84	29	125–200% of poverty	19
85+	12	200–400% of poverty	33
		Over 400% of poverty	25
<b>Health status</b>		<b>Supplemental insurance status</b>	
Excellent or very good	40	Medicare only	10
Good or fair	51	Managed care	20
Poor	10	Employer	33
		Medigap	17
<b>Residence</b>		Medigap/employer	5
Urban	76	Medicaid	14
Rural	24	Other	1

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2007, poverty was defined as income of \$10,590 for people living alone and as \$13,540 for married couples. Totals may not sum to 100 percent due to rounding. Some beneficiaries may have more than one type of supplemental insurance.

\*Based on a representative sample of the Medicare population.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Close to one-quarter of beneficiaries live in rural areas.
- Twenty-nine percent of the Medicare population lives alone.
- Twenty-six percent of beneficiaries have no high school diploma.
- Most Medicare beneficiaries have some source of supplemental insurance.

**Chart 2-6. Characteristics of the Medicare population, by rural and urban residence, 2007**

Characteristic	Percent of urban Medicare population	Percent of rural Medicare population
<b>Sex</b>		
Male	44%	46%
Female	56	54
<b>Race/ethnicity</b>		
White, non-Hispanic	76	87
African American, non-Hispanic	10	6
Hispanic	9	3
Other	5	4
<b>Age</b>		
<65	15	19
65–74	43	42
75–84	29	28
85+	13	11
<b>Health status</b>		
Excellent or very good	41	36
Good or fair	50	51
Poor	9	12
<b>Income status</b>		
Below poverty	13	15
100–125% of poverty	8	9
125–200% of poverty	18	22
200–400% of poverty	33	34
Over 400% of poverty	27	19

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2007, poverty was defined as income of \$10,590 for people living alone and as \$13,540 for married couples. Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Rural Medicare beneficiaries are more likely to be White (87 percent vs. 76 percent), to report being in poor health (12 percent vs. 9 percent), and to have incomes below 125 percent of poverty (24 percent vs. 21 percent) compared with urban beneficiaries.

## Web links. Medicare beneficiary demographics

- CMS Data Compendium contains historic, current, and projected data on Medicare enrollment.

<http://www.cms.gov/DataCompendium/>

- The CMS website provides information on Medicare enrollment by state.

<http://www.cms.gov/MedicareEnRpts>

- The CMS website provides information about the Medicare Current Beneficiary Survey, a resource on the demographic characteristics of Medicare beneficiaries.

<http://www.cms.gov/mcbs>



SECTION

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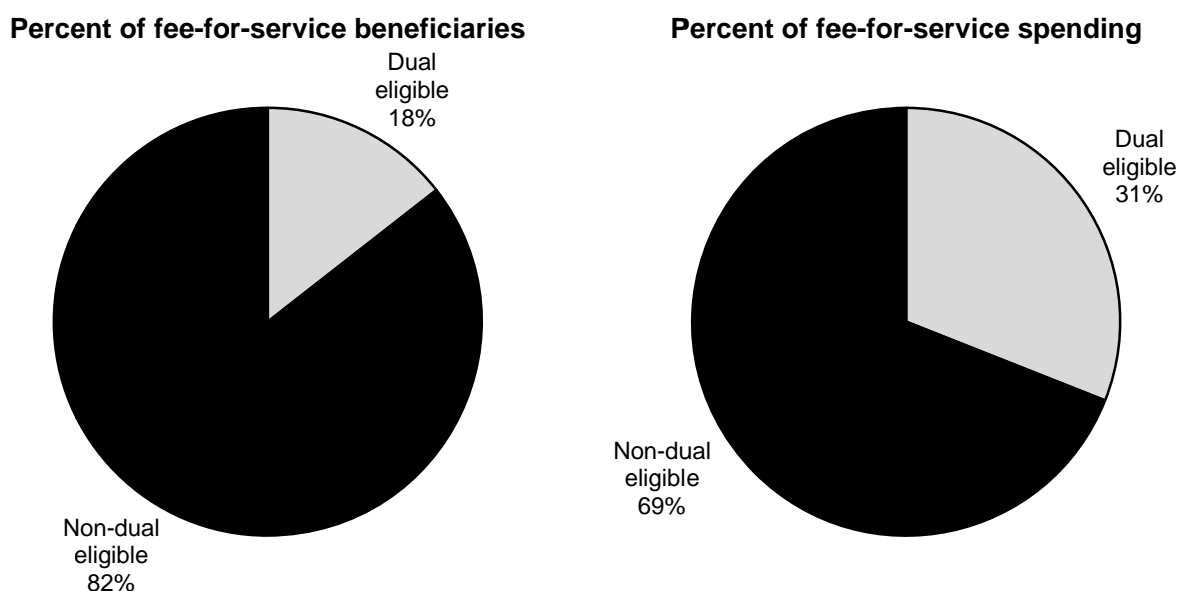
## **Dual-eligible beneficiaries**

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**Chart 3-1. Dual-eligible beneficiaries account for a disproportionate share of Medicare spending, 2007**

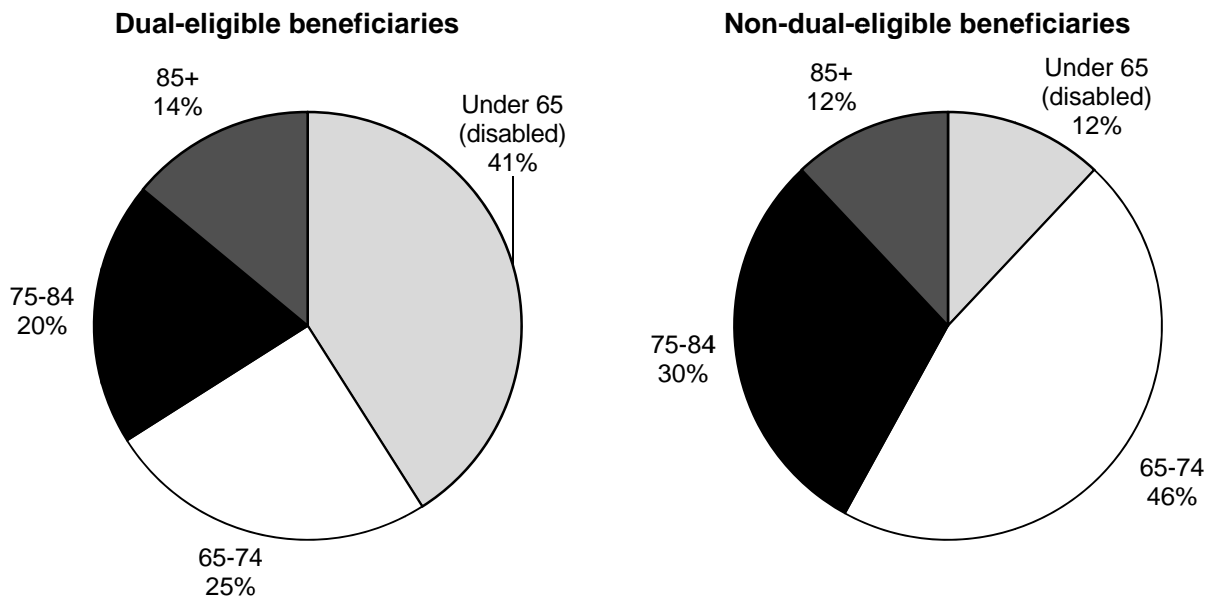


Note: Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Spending data reflect revised 2007 Medicare Current Beneficiary Survey Cost and Use file from CMS.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Dual-eligible beneficiaries are those who qualify for both Medicare and Medicaid. Medicaid is a joint federal and state program designed to help low-income persons obtain needed health care.
- Dual-eligible beneficiaries account for a disproportionate share of Medicare expenditures: As 18 percent of the Medicare fee-for-service population, they represent 31 percent of aggregate Medicare fee-for-service spending.
- On average, dual-eligible beneficiaries incur 2.1 times as much annual fee-for-service Medicare spending as non-dual-eligible beneficiaries: \$16,512 is spent per dual-eligible beneficiary, and \$7,823 is spent per non-dual-eligible beneficiary.
- In 2007, average total spending—which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending across all payers—for dual-eligible beneficiaries was about \$28,500 per beneficiary, twice the amount for other Medicare beneficiaries.

**Chart 3-2. Dual-eligible beneficiaries are more likely than non-dual eligibles to be disabled, 2007**

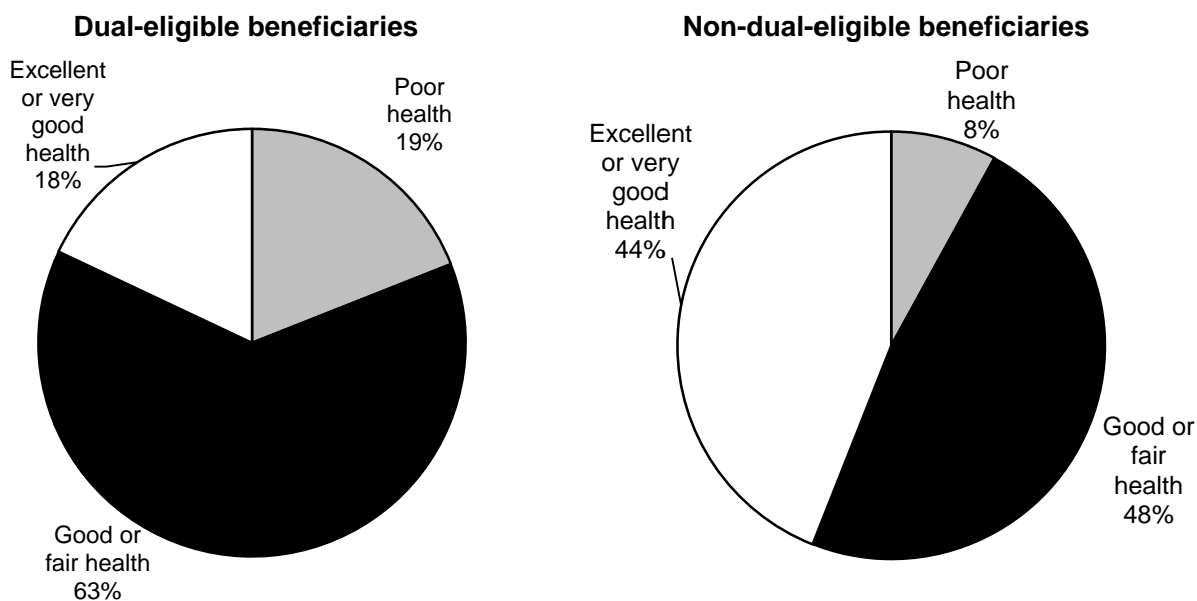


**Note:** Beneficiaries who are under age 65 qualify for Medicare because they are disabled. Once disabled beneficiaries reach age 65, they are counted as aged. Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance.

**Source:** MedPAC analysis of revised Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under age 65 and disabled. Forty-one percent of dual-eligible beneficiaries are under age 65 and disabled, compared with 12 percent of the non-dual-eligible population.

**Chart 3-3. Dual-eligible beneficiaries are more likely than non-dual eligibles to report poorer health status, 2007**



Note: Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report poorer health status. Most report good or fair status, but 19 percent of the dual-eligible population reports being in poor health (compared with 8 percent of the non-dual-eligible population).
- Dual-eligible beneficiaries are more likely to have cognitive impairment and mental disorders. They also have higher rates of diabetes, pulmonary disease, stroke, and Alzheimer's disease than do non-dual-eligible beneficiaries.

**Chart 3-4. Demographic differences between dual-eligible beneficiaries and non-dual eligibles, 2007**

Characteristic	Percent of dual-eligible beneficiaries	Percent of non-dual-eligible beneficiaries
<b>Sex</b>		
Male	37%	46%
Female	63	54
<b>Race/ethnicity</b>		
White, non-Hispanic	58	82
African American, non-Hispanic	18	8
Hispanic	14	7
Other	10	4
<b>Limitations in ADLs</b>		
No ADLs	46	72
1–2 ADLs	24	19
3–6 ADLs	30	9
<b>Residence</b>		
Urban	70	77
Rural	30	22
<b>Living arrangement</b>		
Institution	20	2
Alone	27	26
Spouse	15	46
Children, nonrelatives, others	30	13
<b>Education</b>		
No high school diploma	53	22
High school diploma only	24	32
Some college or more	19	46
<b>Income status</b>		
Below poverty	48	8
100–125% of poverty	21	6
125–200% of poverty	22	19
200–400% of poverty	6	37
Over 400% of poverty	1	29
<b>Supplemental insurance status</b>		
Medicare or Medicare/Medicaid only	93	11
Medicare managed care	3	24
Employer	1	38
Medigap	0	20
Medigap/employer	0	6
Other*	3	1

Note: ADL (activity of daily living). Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for other supplemental insurance. Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2007, poverty was defined as income of \$10,590 for people living alone and \$13,540 for married couples. Totals may not sum to 100 percent due to rounding and exclusion of an “other” category. \*Includes public programs such as the Department of Veterans Affairs and state-sponsored drug plans.

Source: MedPAC analysis of revised Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Dual-eligible beneficiaries qualify for Medicaid due to low incomes: Forty-eight percent live below the poverty level, and 91 percent live below 200 percent of poverty. Compared with non-dual-eligible beneficiaries, dual-eligible beneficiaries are more likely to be female; to be African American or Hispanic; to lack a high school diploma; to have greater limitations in activities of daily living; to reside in a rural area; and to live in an institution (20 percent vs. 2 percent), alone, or with persons other than a spouse.

**Chart 3-5. Differences in spending and service use rate between dual-eligible beneficiaries and non-dual eligibles, 2007**

Service	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
<b>Average Medicare payment for all beneficiaries</b>		
Total Medicare payments	\$16,512	\$7,823
Inpatient hospital	5,369	2,751
Physician*	2,884	2,294
Outpatient hospital	1,647	886
Home health	752	379
Skilled nursing facility**	1,160	484
Hospice	403	153
Prescribed medication***	4,262	852
<b>Percent of beneficiaries using service</b>		
Percent using any type of service	95.0%	87.0%
Inpatient hospital	29.0	18.4
Physician*	90.0	84.0
Outpatient hospital	74.3	62.2
Home health	12.3	8.0
Skilled nursing facility**	9.4	4.4
Hospice	4.1	1.8

Note: Includes only fee-for-service Medicare beneficiaries. Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Spending totals derived from the Medicare Current Beneficiary Survey (MCBS) do not necessarily match official estimates from CMS, Office of the Actuary. Total payments may not equal the sum of line items as some minor items have been omitted. Spending data reflect revised 2007 Medicare Current Beneficiary Survey Cost and Use file from CMS.

\*Includes a variety of medical services, equipment, and supplies.

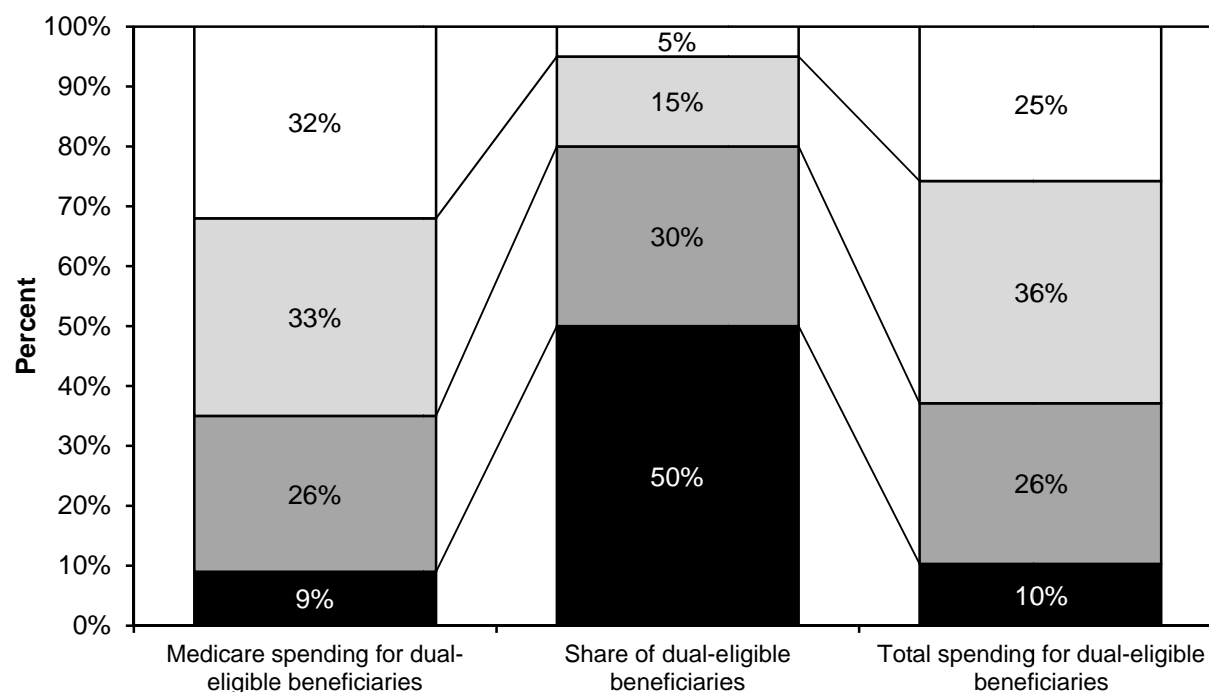
\*\*Individual short-term facility (usually skilled nursing facility) stays for the Medicare Current Beneficiary Survey population.

\*\*\*CMS changed the methodology for collecting prescription drug data in the MCBS in 2007. Before 2007, all prescription drug data were based on information collected in the survey; however, starting in 2007, CMS began collecting prescription drug data for the MCBS from Medicare Advantage—Prescription Drug plans and prescription drug plans.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Average per capita Medicare spending for dual-eligible beneficiaries is more than twice that for non-dual-eligible beneficiaries—\$16,512 compared with \$7,823.
- For each type of service, average Medicare per capita spending is higher for dual-eligible beneficiaries than for non-dual-eligible beneficiaries.
- Higher average per capita spending for dual-eligible beneficiaries is a function of a higher service use rate and greater intensity of use than their non-dual-eligible counterparts.
- Dual-eligible beneficiaries are more likely to use each type of Medicare-covered service than non-dual-eligible beneficiaries.

**Chart 3-6. Both Medicare and total spending are concentrated among dual-eligible beneficiaries, 2007**



Note: Total spending includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending. Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Totals may not sum to 100 percent due to rounding. Spending data reflect revised 2007 Medicare Current Beneficiary Survey Cost and Use file from CMS.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use files, 2007.

- Annual Medicare spending is concentrated among a small number of dual-eligible beneficiaries. The costliest 20 percent of dual eligibles account for 65 percent of Medicare spending and 61 percent of total spending on dual-eligible beneficiaries. In contrast, the least costly 50 percent of dual-eligible beneficiaries account for only 9 percent of Medicare spending and 10 percent of total spending on dual-eligible beneficiaries.
- On average, total spending for dual-eligible beneficiaries is twice that for non-dual-eligible beneficiaries—\$28,518 compared with \$14,204.

## Web links. Dual-eligible beneficiaries

- Chapter 5 of the MedPAC June 2011 Report to the Congress provides information on dual-eligible beneficiaries.

[http://medpac.gov/chapters/Jun11\\_Ch05.pdf](http://medpac.gov/chapters/Jun11_Ch05.pdf)

- Chapter 5 of the MedPAC June 2010 Report to the Congress provides further information on dual-eligible beneficiaries.

[http://medpac.gov/chapters/Jun10\\_Ch05.pdf](http://medpac.gov/chapters/Jun10_Ch05.pdf)

- The Kaiser Family Foundation provides information on dual-eligible beneficiaries.

<http://www.kff.org/medicaid/duals.cfm>

- Further information on dual eligibles is available from the CMS Medicare–Medicaid Coordination Office.

[http://www.cms.gov/medicare-medicaid-coordination/01\\_overview.asp?](http://www.cms.gov/medicare-medicaid-coordination/01_overview.asp?)





SECTION

# 4

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## **Quality of care in the Medicare program**

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**Chart 4-1. Most in-hospital and 30-day postdischarge mortality rates improved from 2006 to 2009**

Condition or procedure	Risk-adjusted rate per 100 eligible discharges, 2006	Risk-adjusted rate per 100 eligible discharges, 2009	Directional change in rate, 2006–2009
<b>In-hospital mortality</b>			
Esophageal resection	8.29	6.14	No difference
Pancreatic resection	6.18	4.36	No difference
Abdominal aortic aneurysm repair	5.17	5.27	No difference
Acute myocardial infarction	9.36	7.43	Better
Congestive heart failure	4.24	3.27	Better
Stroke	11.19	8.94	Better
Hip fracture	3.50	2.89	Better
Pneumonia	4.72	3.69	Better
<b>30-day postdischarge mortality</b>			
Esophageal resection	10.66	7.98	No difference
Pancreatic resection	7.74	6.05	No difference
Abdominal aortic aneurysm repair	6.53	7.09	No difference
Acute myocardial infarction	15.75	13.08	Better
Congestive heart failure	10.62	8.76	Better
Stroke	23.31	19.77	Better
Hip fracture	9.50	8.04	Better
Pneumonia	10.32	8.35	Better

Note: Rates are calculated based on the discharges eligible to be counted in each measure. Rates do not include deaths in non-inpatient prospective payment system hospitals or Medicare Advantage plans. “Better” indicates that the risk-adjusted rate decreased by a statistically significant amount from 2006 to 2009 using a  $p \leq 0.01$  criterion. “No difference” indicates that the change in the rate was not statistically significant from 2006 to 2009 using a  $p \leq 0.01$  criterion.

Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Inpatient Quality Indicators Version 4.1b (with modifications for 30-day mortality rate calculations).

- Trends in risk-adjusted in-hospital mortality rates are used to assess changes in the quality of care provided to Medicare beneficiaries during inpatient stays for certain medical conditions and surgical procedures. The 30-day postdischarge mortality rates reflect the quality-of-care transitions for beneficiaries in the critical period during and after a hospital discharge.
- From 2006 to 2009, in-hospital and 30-day postdischarge mortality rates improved by a statistically significant amount for all five medical conditions measured: acute myocardial infarction, congestive heart failure, stroke, hip fracture, and pneumonia.
- Both types of mortality rates for the three inpatient surgical procedures measured—esophageal resection, pancreatic resection, and repair of abdominal aortic aneurysm—were stable from 2006 to 2009; there was no statistically significant change in those rates from 2006 to 2009.

**Chart 4-2. Hospital inpatient patient safety indicators improved or were stable from 2006 to 2009**

Patient safety indicator	Risk-adjusted rate per 100 eligible discharges, 2006	Risk-adjusted rate per 100 eligible discharges, 2009	Directional change in rate, 2006–2009
Death among surgical inpatients with treatable serious complications	10.44	9.85	No difference
Iatrogenic pneumothorax	0.10	0.07	Better
Postoperative respiratory failure	1.94	1.88	No difference
Postoperative PE or DVT	0.93	0.50	Better
Postoperative wound dehiscence	0.29	0.28	No difference
Accidental puncture or laceration	0.34	0.23	Better

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). “Better” indicates that the risk-adjusted rate decreased by a statistically significant amount from 2006 to 2009 using a  $p \leq 0.01$  criterion. “No difference” indicates that the change in the rate from 2006 to 2009 was not statistically significant using a  $p \leq 0.01$  criterion.

Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Patient Safety Indicators Version 4.1b.

- The observed rates for these patient safety indicators provide an indication of the frequency of injuries to patients from their medical care or complications from clinical procedures that often can be avoided with appropriate medical care. The rates are calculated using software developed by the Agency for Healthcare Research and Quality (AHRQ) and Medicare inpatient hospital discharge data. The software is periodically revised by AHRQ, so rates for a given year and trends over time that are calculated with different versions of the software are not directly comparable.
- With an updated version of the AHRQ software (compared with the 2010 data book), the observed rate improved between 2006 and 2009 for three of the six indicators analyzed: iatrogenic pneumothorax, postoperative pulmonary embolism (a blood clot in one or more arteries of the lung) or deep vein thrombosis (a blood clot in a deep vein, usually the leg), and accidental puncture or laceration. The rates for the other three indicators were stable; that is, there was no statistically significant change in those rates from 2006 to 2009.
- Medicare began requiring all inpatient prospective payment system (IPPS) hospitals to indicate whether a condition was “present on admission” (POA) for inpatient discharges on or after October 1, 2007, with the goal of more accurately identifying conditions that actually are acquired during a hospital stay. The increasingly consistent use of POA indicator codes by IPPS hospitals should enable more reliable analyses of patient safety indicator rates and trends in the future.

**Chart 4-3. Most ambulatory care quality indicators improved or were stable from 2007 to 2009**

Indicators	Number of indicators			Total
	Improved	Stable	Worsened	
All	19	16	3	38
Anemia	2	2	0	4
CAD	2	2	0	4
Cancer	2	4	1	7
CHF	5	3	0	8
COPD	1	0	1	2
Depression	0	1	0	1
Diabetes	6	1	0	7
Hypertension	0	0	1	1
Stroke	1	3	0	4

Note: CAD (coronary artery disease), CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of Medicare Ambulatory Care Indicators for the Elderly with data from the Medicare 5 percent Standard Analytic Files.

- The Medicare Ambulatory Care Indicators for the Elderly track the provision of necessary care and rates of potentially avoidable hospitalizations for beneficiaries age 65 or older with selected medical conditions.
- Of 38 indicators, 19 improved and 16 did not change by a statistically significant amount. This finding indicates that for most measures, rates of beneficiaries with selected conditions receiving clinically indicated services and averting potentially avoidable hospitalizations were the same or better in 2009 compared with 2007. Additionally, for diabetes and congestive heart failure patients, reductions in potentially avoidable hospitalizations occurred concurrently with improvements in process-of-care measures for those conditions.
- Our analysis found declines in three of the indicators. The percentage of beneficiaries diagnosed with iron-deficiency anemia for whom a follow-up colonoscopy should be performed (to check for the possibility of colon cancer) has remained below 30 percent since we started examining this indicator in 2002–2003. There also were small but statistically significant declines from 2007 to 2009 in rates of potentially preventable hospitalizations for beneficiaries diagnosed with chronic obstructive pulmonary disease and those diagnosed with hypertension.
- Three of the six measures of potentially avoidable hospitalizations and emergency department visits improved, one remained stable, and two worsened (discussed above). The improved measures were the percentage of beneficiaries with diabetes who were admitted to a hospital for serious short-term diabetes-related complications (such as hyperglycemia), the percentage of beneficiaries with diabetes admitted for long-term diabetes-related complications (such as lower extremity amputation), and the percentage of beneficiaries with congestive heart failure who had hospitalizations related to that disease. Rates were stable between 2007 and 2009 for the percentage of beneficiaries diagnosed with unstable angina who had multiple emergency department visits during the year.

**Chart 4-4. Risk-adjusted SNF quality measures show mixed results since 2000**

Measure	2000	2004	2006	2008	Percentage point change, 2000–2008
Percent discharged to community within 100 days of SNF admission	33.3%	34.4%	35.3%	36.0%	2.7%
Percent rehospitalized for any of five conditions within 100 days of SNF admission	13.7	13.8	13.8	13.9	0.2

Note: SNF (skilled nursing facility). Increases in rates of discharge to community indicate improved quality. The five conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Increases in rehospitalization for the five conditions indicate worsening quality. Rates are calculated for all facilities with 25 or more stays.

Source: MedPAC analysis of freestanding SNF cost reports.

- The 2008 risk-adjusted rate at which Medicare-covered skilled nursing facility (SNF) patients were discharged to the community was 36 percent. The rate improved since 2000, indicating improved quality.
- The 2008 risk-adjusted rate at which Medicare-covered SNF patients were rehospitalized for potentially avoidable conditions was 13.9 percent, almost the same as in 2000 and indicating almost no change in quality.
- Across facilities, the risk-adjusted measures varied considerably (not shown). Facilities with the highest rates of discharge to the community (the top 10th percentile) were three times more likely to discharge Medicare patients to the community compared with facilities with the lowest rates (the lowest 10th percentile). Risk-adjusted rates of rehospitalization varied less but still more than twofold.

**Chart 4-5. Share of home health patients with positive outcomes has grown, but increases have leveled off**

	2004	2005	2006	2007	2008	2009	2010
<b>Functional/pain measures (higher is better)</b>							
Improvements in:							
Walking	36%	37%	39%	41%	44%	45%	47%
Getting out of bed	50	51	52	53	53	54	54
Bathing	59	61	62	63	64	64	65
Managing oral medications	37	39	40	41	43	43	43
Patients have less pain	59	61	62	63	64	64	64
<b>Adverse event measure (lower is better)</b>							
Any hospital admission	28	28	28	28	29	29	29

Source: MedPAC analysis of CMS Home Health Compare data.

- Medicare publishes risk-adjusted home health quality measures that track changes in the functional abilities and rates of adverse events for patients who receive home health care.
- Since 2004, the functional measures—such as improvements in walking and bathing, and pain control—have shown small but steady improvement, although the trend has leveled off in recent years. (For these measures, increasing values indicate improvement.)
- The adverse event rates—including hospitalizations and emergency room use—have mostly remained unchanged over this period.

**Chart 4-6. Dialysis quality of care: Some measures show progress, others need improvement**

Outcome measure	2003	2007	2008	2009
Percent of in-center hemodialysis patients:				
Receiving adequate dialysis	94%	94%	95%	95%
Anemia measures				
Mean hemoglobin 10–12 g/dL	48	49	57	62
Mean hemoglobin ≥ 13 g/dL*	15	14	9	7
Mean hemoglobin < 10 g/dL*	6	6	6	6
Dialyzed with an AV fistula	33	47	50	53
Percent of peritoneal dialysis patients:				
Receiving adequate dialysis	N/A	89	88	89
Anemia measures				
Mean hemoglobin 10–12 g/dL	45	48	52	57
Mean hemoglobin ≥ 13 g/dL*	21	18	14	12
Mean hemoglobin < 10 g/dL*	7	7	9	10
Percent of prevalent dialysis patients wait-listed for a kidney	15	17	17	N/A
Renal transplant rate per 100 dialysis patient years	4.8	4.4	4.2	N/A
Annual mortality rate per 100 patient years*	21.4	19.3	18.6	N/A
Total admissions per patient year*	2.0	1.9	1.9	N/A
Hospital days per patient year	13.7	12.9	12.8	N/A

Note: g/dL (grams per deciliter of blood), AV (arteriovenous), N/A (not available). Data on dialysis adequacy, use of fistulas, and anemia management represent percent of patients meeting CMS's clinical performance measures. United States Renal Data System adjusts data by age, gender, race, and primary diagnosis of end-stage renal disease.

\*Lower values suggest higher quality.

Source: Compiled by MedPAC from the Elab Project Report, Fistula First, and the United States Renal Data System.

- The quality of dialysis care has improved for some measures. All hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. Between 2003 and 2009, use of arteriovenous fistulas, considered the best type of vascular access, increased from 33 percent to 53 percent of hemodialysis patients. Between 2003 and 2008, overall adjusted mortality rates decreased but remained high among dialysis patients.
- The quality of dialysis care has remained steady for some measures. Between 2003 and 2009, the proportion of hemodialysis patients receiving adequate dialysis remained high. Overall rates of hospitalization remained steady at about two admissions per dialysis patient per year.
- Other measures suggest that improvements in dialysis quality are still needed. We looked at access to kidney transplantation because it is widely believed that it is the best treatment option for individuals with end-stage renal disease. The proportion of dialysis patients accepted on the kidney transplant waiting list remains low. The falloff in the rate of kidney transplantation is partly due to a decrease in live organ donations during this period.



**Chart 4-7. Medicare Advantage quality measures were generally stable between 2009 and 2010**

Measures	HMO averages		Local PPO averages	
	2009	2010	2009	2010
<b>HEDIS<sup>®</sup> administrative measures</b>				
Breast cancer screening	67.9	69.1	65.7	66.1 <sup>†</sup>
Glaucoma testing	59.8	62.1*	62.5	64.2
Monitoring of patients taking long-term medications	86.3	89.1*	88.7	89.7
At least one primary care doctor visit in the last year	92.7	93.7*	95.1	95.6 <sup>†</sup>
Osteoporosis management	20.7	20.7	17.2	18.1 <sup>†</sup>
Rheumatoid arthritis management	70.4	72.3	75.2	76.9 <sup>†</sup>
Tests to confirm chronic obstructive pulmonary disorder	27.7	28.4	26.4	28.7
<b>HEDIS<sup>®</sup> hybrid measures</b>				
Colorectal cancer screening	53.0	54.7	a	a
Cholesterol screening for patients with heart disease	88.5	88.4	a	a
Controlling blood pressure	58.5	59.7	a	a
Cholesterol screening for patients with diabetes	86.3	87.3	a	a
Eye exam to check for damage from diabetes	60.8	63.5*	a	a
Kidney function testing for patients with diabetes	87.8	88.5	a	a
Diabetics with cholesterol under control	48.6	49.9	a	a
Diabetics not controlling blood sugar (lower rate better)	29.5	28.1	a	a
<b>Measures from HOS<sup>b</sup></b>				
Osteoporosis testing	66.7	67.4	72.5	73.8
Monitoring physical activity	46.9	46.9	47.0	48.1 <sup>†</sup>
Improving bladder control	35.3	35.4	36.3	37.9 <sup>†</sup>
Reducing the risk of falling	57.8	58.2	54.8	54.4 <sup>†</sup>
<b>Other measures based on HOS</b>				
Improving or maintaining physical health	66.0	66.6	66.3	67.3
Improving or maintaining mental health	77.4	76.9	78.4	77.7
<b>Measures from CAHPS<sup>®</sup></b>				
Annual flu vaccine	66.4	64.3*	67.2	65.3
Pneumonia vaccine	64.4	65.1	66.9	67.0
Ease of getting needed care and seeing specialists	83.2	83.8	83.8	84.8*
Doctors who communicate well	89.5	89.3	89.5	89.4
Getting appointments and care quickly	73.8	73.8	74.8	74.1
Overall rating of health care quality	84.0	83.9	84.7	84.6
Overall rating of plan	84.2	83.3*	83.0	81.8*

Note: PPO (preferred provider organization), HEDIS<sup>®</sup> (Healthcare Effectiveness Data and Information Set, a registered trademark of the National Committee for Quality Assurance), HOS (Health Outcomes Survey), CAHPS<sup>®</sup> (Consumer Assessment of Healthcare Providers and Systems, a registered trademark of the Agency for Healthcare Research and Quality). Medicare Advantage plan types not included in the data are regional PPOs, private fee-for-service plans, continuing care retirement community plans, and employer-direct plans. Cost-reimbursed HMO plan results are included. HEDIS<sup>®</sup> administrative measures are calculated by using administrative data such as claims, encounter data, pharmacy data, and certain electronic records; hybrid measures involve sampling medical records to determine a rate.

\*Statistically significant difference in performance on this measure for plan type compared with preceding year ( $p < 0.05$ ).

<sup>†</sup>Statistically significant difference in performance in 2010 between HMO and PPO results ( $p < 0.05$ ).

(Chart continued next page)

## Chart 4-7. Medicare Advantage quality measures were generally stable between 2009 and 2010 (continued)

<sup>a</sup>PPO results not reported for hybrid measures for 2009 because plans were not allowed to use medical record review to determine rates. Because 2010 is the first year in which PPOs are using medical record review, local PPO rates may not be entirely comparable to HMO rates (statistical significance of differences between HMOs and PPOs therefore not determined). For the colorectal cancer screening measure, CMS specifically excludes PPO results in determining star thresholds for plans because of the specification of the measure, which includes a nine-year look-back period to confirm whether a person has received a colonoscopy.

<sup>b</sup>Results shown for HEDIS<sup>®</sup> measures taken from HOS (the four measures listed) include scores for plans not reporting other HEDIS<sup>®</sup> data in 2010. Results will therefore differ from those shown in other MedPAC reporting of these scores.

Source: MedPAC analysis of CMS HEDIS public use files for HEDIS measures, and star ratings data for measures based on HOS and for CAHPS measures.

- CMS compiles quality data from several sources to calculate a “star rating” (ranging from one to five stars) for Medicare Advantage (MA) plans. Beginning in 2012, plan ratings under the CMS star system will determine which MA plans are eligible for quality bonuses. These data provide a baseline for determining the effect of having certain measures tied to bonus payments. The performance on such measures can also be compared with plan performance on measures that are not included in the star rating system.
- For the 28 clinical and patient experience measures included in the star ratings, HMO plan performance was generally stable between 2009 and 2010, with 4 measures showing statistically significant improvement and 2 declining. Among local preferred provider organization (PPO) plans, two measures showed improvement in this time period, and one declined.
- As of 2010, PPO plans are reporting results for hybrid measures using medical record review, which they were not allowed to do before 2010. For the hybrid measures, local PPOs are reporting poorer results than HMOs, but this result may be because the medical record-based reporting is new for PPOs. For the nonhybrid measures included in the star rating system, local PPO results are better than HMO results for four measures and worse for two measures.

## Web links. Quality of care in the Medicare program

- Chapters 3, 4, and 6 through 9 of the MedPAC March 2011 Report to the Congress include information on the quality of care provided by inpatient hospitals, physicians and other ambulatory care providers, outpatient dialysis facilities, skilled nursing facilities, home health agencies, and inpatient rehabilitation facilities.

[http://www.medpac.gov/chapters/Mar11\\_Ch03.pdf](http://www.medpac.gov/chapters/Mar11_Ch03.pdf)

[http://www.medpac.gov/chapters/Mar11\\_Ch04.pdf](http://www.medpac.gov/chapters/Mar11_Ch04.pdf)

[http://www.medpac.gov/chapters/Mar11\\_Ch06.pdf](http://www.medpac.gov/chapters/Mar11_Ch06.pdf)

[http://www.medpac.gov/chapters/Mar11\\_Ch07.pdf](http://www.medpac.gov/chapters/Mar11_Ch07.pdf)

[http://www.medpac.gov/chapters/Mar11\\_Ch08.pdf](http://www.medpac.gov/chapters/Mar11_Ch08.pdf)

[http://www.medpac.gov/chapters/Mar11\\_Ch09.pdf](http://www.medpac.gov/chapters/Mar11_Ch09.pdf)

- Chapter 12 of the MedPAC March 2011 Report to the Congress includes information on the quality of care in Medicare Advantage plans.

[http://www.medpac.gov/chapters/Mar11\\_Ch12.pdf](http://www.medpac.gov/chapters/Mar11_Ch12.pdf)

- Chapter 13 of the MedPAC March 2011 Report to the Congress includes information on performance metrics for Medicare Part D plans (prescription drug plans and Medicare Advantage–Prescription Drug plans).

[http://www.medpac.gov/chapters/Mar11\\_Ch13.pdf](http://www.medpac.gov/chapters/Mar11_Ch13.pdf)

- Chapter 6 of the MedPAC March 2010 Report to the Congress includes a set of recommendations on comparing the quality of care between Medicare fee-for-service and Medicare Advantage and among Medicare Advantage plans.

[http://www.medpac.gov/chapters/Mar10\\_Ch06.pdf](http://www.medpac.gov/chapters/Mar10_Ch06.pdf)

- Chapter 4 of the MedPAC June 2007 Report to the Congress discusses policy options to improve the quality of home health services, and Chapter 8 of the same report provides information on the quality of care provided by skilled nursing facilities.

[http://www.medpac.gov/chapters/Jun07\\_Ch04.pdf](http://www.medpac.gov/chapters/Jun07_Ch04.pdf)

[http://www.medpac.gov/chapters/Jun07\\_Ch08.pdf](http://www.medpac.gov/chapters/Jun07_Ch08.pdf)

- Chapter 2 of the MedPAC June 2006 Report to the Congress discusses care coordination for Medicare beneficiaries and its implications for quality of care.

[http://www.medpac.gov/publications/congressional\\_reports/Jun06\\_Ch02.pdf](http://www.medpac.gov/publications/congressional_reports/Jun06_Ch02.pdf)

- Chapter 4 of the MedPAC March 2005 Report to the Congress outlines strategies to improve care through pay-for-performance incentives and information technology.

[http://www.medpac.gov/publications/congressional\\_reports/Mar05\\_Ch04.pdf](http://www.medpac.gov/publications/congressional_reports/Mar05_Ch04.pdf)

- The CMS website provides information on several of the Medicare quality and value-based purchasing initiatives.

<http://www.cms.gov/QualityInitiativesGenInfo/>

- Medicare provides public comparative information on selected quality measures for hospital, nursing facility, home health agency, and dialysis facilities on its consumer website.

Hospital Compare: <http://www.hospitalcompare.hhs.gov/hospital-search.aspx>

Nursing Home Compare: <http://www.medicare.gov/NHCompare/Home.asp>

Home Health Compare: <http://www.medicare.gov/HomeHealthCompare/search.aspx>

Dialysis Facility Compare: <http://www.medicare.gov/Dialysis/Home.asp>

- CMS makes available downloadable databases of the quality measures and other information underlying the four provider comparison databases cited above.

<http://www.medicare.gov/Download/DownloadDB.asp>

- Medicare Advantage plan quality measures are available through a Medicare consumer website (the Medicare Plan Finder) that makes plan-to-plan comparisons within a specified geographic area, including comparisons with Medicare fee-for-service results on certain measures.

<http://www.medicare.gov/MPPF/home.asp>

- CMS makes available a downloadable database of the Medicare Advantage plan quality measures underlying the Medicare Plan Finder and the star ratings of plans.

<http://www.medicare.gov/Download/DownloadDB.asp> (select “Plans—Quality Data” from the drop-down menu)

- Current and past editions of the National Committee for Quality Assurance (NCQA) publication *The State of Health Care Quality* are available from the NCQA website.

<http://www.ncqa.org/tabid/836/Default.aspx>

SECTION

# 5

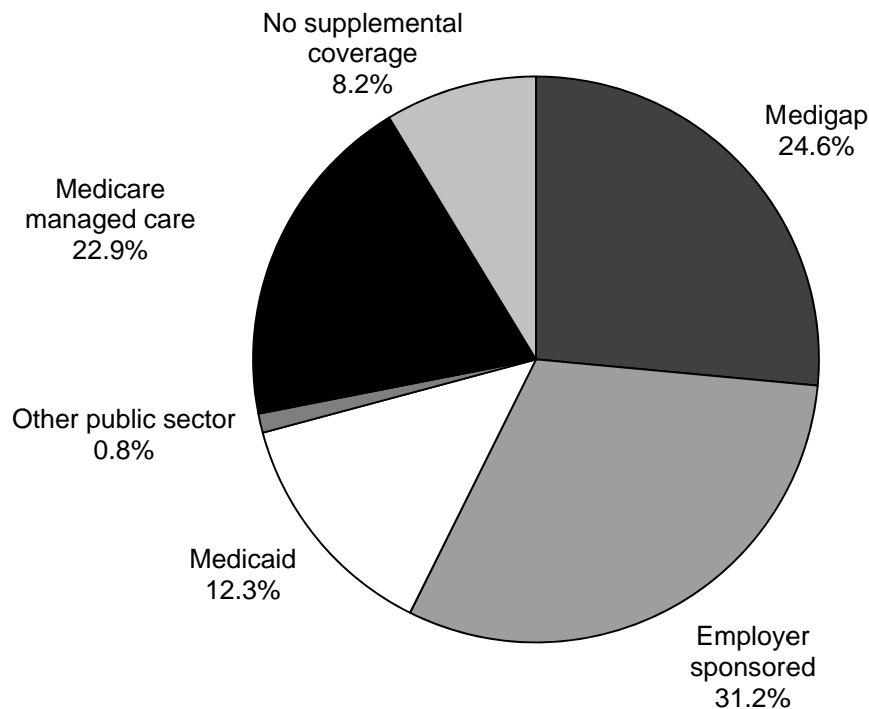
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**Medicare beneficiary and  
other payer financial liability**

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**Chart 5-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2007**



**Note:** Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2007. They could have had coverage in other categories throughout 2007. "Other public sector" includes federal and state programs not included in other categories. Analysis includes only beneficiaries not living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2007 or who had Medicare as a second payer.

**Source:** MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Most beneficiaries living in the community have coverage that supplements or replaces the Medicare benefit package. About 92 percent of beneficiaries have supplemental coverage or participate in Medicare managed care.
- About 56 percent have private-sector supplemental coverage such as medigap (about 25 percent) or employer-sponsored retiree coverage (about 31 percent).
- About 13 percent have public-sector supplemental coverage, primarily Medicaid.
- Twenty-three percent participate in Medicare managed care. This care includes Medicare Advantage, cost, and health care prepayment plans. These types of arrangements generally replace Medicare coverage and often add to it.
- The proportion of beneficiaries who have managed care enrollment on this diagram (about 23 percent) is smaller than the proportion listed in Section 9 (24 percent), because this chart reflects 2007 data and Section 9 reflects 2011 data. Managed care enrollment grew substantially in the intervening years.

**Chart 5-2. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2007**

	Number of beneficiaries (thousands)	Employer- sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other public sector	Medicare only
<b>All beneficiaries</b>	<b>38,364</b>	<b>31%</b>	<b>25%</b>	<b>12%</b>	<b>23%</b>	<b>1%</b>	<b>8%</b>
<b>Age</b>							
Under 65	5,635	19	5	39	17	1	19
65–69	8,751	35	25	7	23	1	9
70–74	7,803	32	27	9	25	1	6
75–79	6,615	33	27	8	26	1	5
80–84	5,224	34	32	7	22	1	5
85+	4,336	33	33	9	23	1	5
<b>Income status</b>							
Below poverty	6,117	9	13	46	21	1	10
100% to 125% of poverty	3,502	13	21	27	27	1	11
125% to 200% of poverty	7,829	24	26	10	26	2	13
200% to 400% of poverty	11,462	41	26	1	24	1	7
Over 400% of poverty	9,379	46	31	0	19	0	4
<b>Eligibility status</b>							
Aged	32,546	33	28	8	24	1	6
Disabled	5,476	18	5	39	17	1	19
ESRD	291	28	27	21	13	0	11
<b>Residence</b>							
Urban	29,286	32	23	11	27	1	7
Rural	9,052	30	31	17	9	1	12
<b>Sex</b>							
Male	17,080	33	22	11	23	1	11
Female	21,285	30	26	14	23	1	6
<b>Health status</b>							
Excellent/very good	15,852	35	28	6	24	1	6
Good/fair	19,107	30	23	15	22	1	9
Poor	3,178	24	17	26	20	1	13

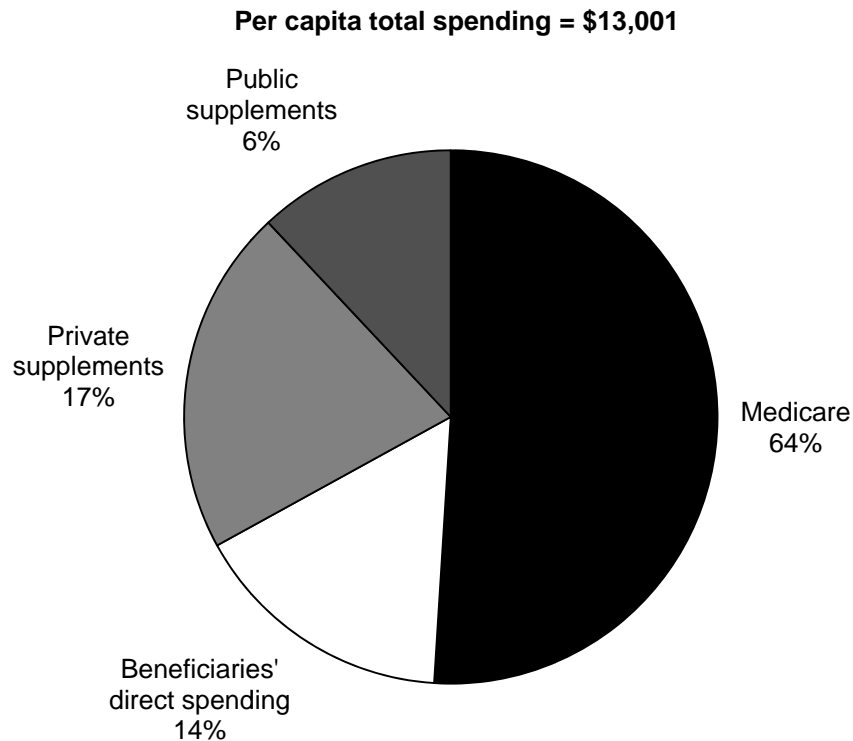
Note: ESRD (end-stage renal disease). Beneficiaries are assigned to the supplemental coverage where they spent the most time in 2007. They could have had coverage in other categories throughout 2007. Medicare managed care includes Medicare Advantage, cost, and health care prepayment plans. "Other public sector" includes federal and state programs not included in other categories. In 2007, poverty was defined as \$9,944 for people living alone and \$12,550 for married couples. "Urban" indicates beneficiaries living in metropolitan statistical areas (MSAs). "Rural" indicates beneficiaries living outside MSAs. Analysis includes beneficiaries living in the community. Number of beneficiaries differs among boldface categories because we exclude beneficiaries with missing values.

Source: MedPAC analysis of 2007 Medicare Current Beneficiary Survey, Cost and Use file.

- Beneficiaries most likely to have employer-sponsored supplemental coverage are those who are above age 64, are higher income (above 200 percent of poverty), are eligible due to age or end-stage renal disease (ESRD), and report better than good health.
- Medigap is most common among those who are age 80 or older, are middle or high income (above 125 percent of poverty), are eligible due to age or ESRD, are rural dwelling, are female, and report excellent or very good health.
- Medicaid coverage is most common among those who are under age 65, are low income (below 125 percent of poverty), are eligible due to disability, and report poor health.
- Lack of supplemental coverage (Medicare coverage only) is most common among beneficiaries who are under age 65, have income below 200 percent of poverty, are eligible due to disability, are rural dwelling, are male, and report poor health.



**Chart 5-3. Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2007**

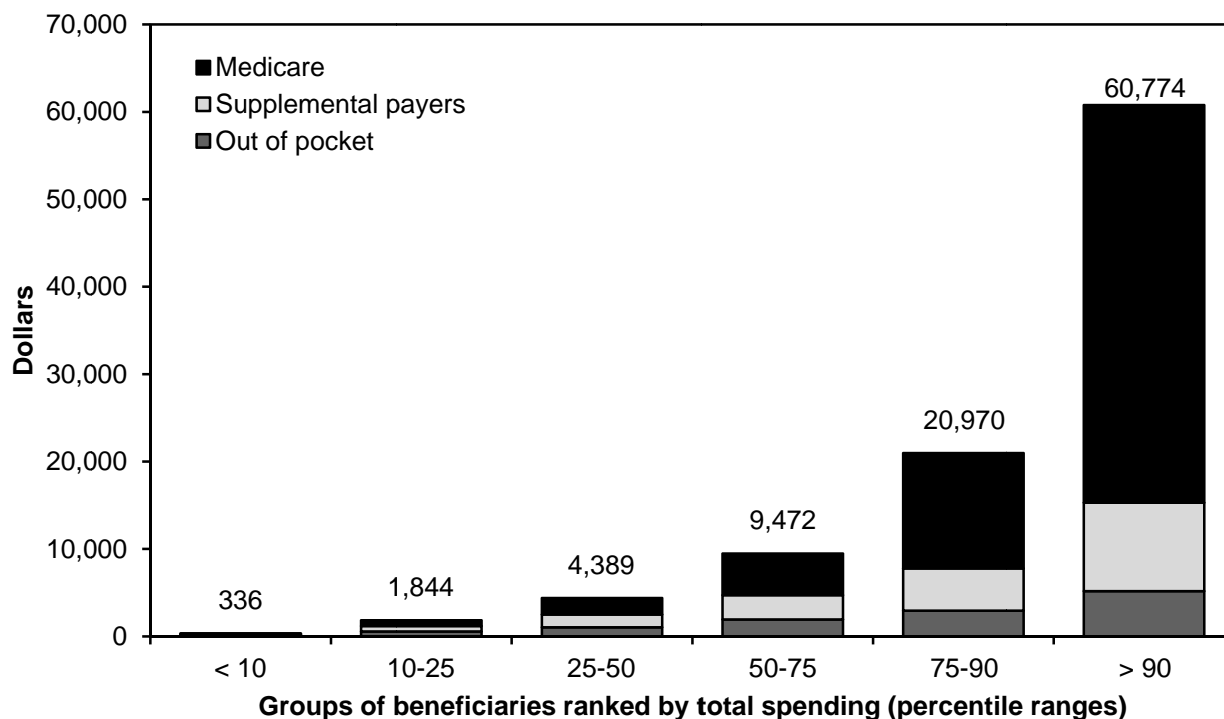


Note: FFS (fee-for-service). Private supplements include employer-sponsored plans and individually purchased coverage. Public supplements include Medicaid, Department of Veterans Affairs, and other public coverage. Direct spending is on Medicare cost sharing and noncovered services but not supplemental premiums. Analysis includes only FFS beneficiaries not living in institutions such as nursing homes. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Among fee-for-service (FFS) beneficiaries living in the community, the total cost of health care services (defined as beneficiaries' direct spending as well as expenditures by Medicare, other public-sector sources, and all private-sector sources on all health care goods and services) averages \$13,001. Medicare is the largest source of payment; it pays 64 percent of the health care costs for FFS beneficiaries living in the community, an average of \$8,299 per beneficiary. The level of Medicare spending in this chart differs from the level in Chart 2-1 because this chart excludes beneficiaries in Medicare Advantage and those living in institutions, while Chart 2-1 represents all Medicare beneficiaries.
- Private sources of supplemental coverage—primarily employer-sponsored retiree coverage and medigap—paid 17 percent of beneficiaries' costs, an average of \$2,182 per beneficiary.
- Beneficiaries paid 14 percent of their health care costs out of pocket, an average of \$1,798 per beneficiary.
- Public sources of supplemental coverage—primarily Medicaid—paid 6 percent of beneficiaries' health care costs, an average of \$721 per beneficiary.

**Chart 5-4. Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2007**

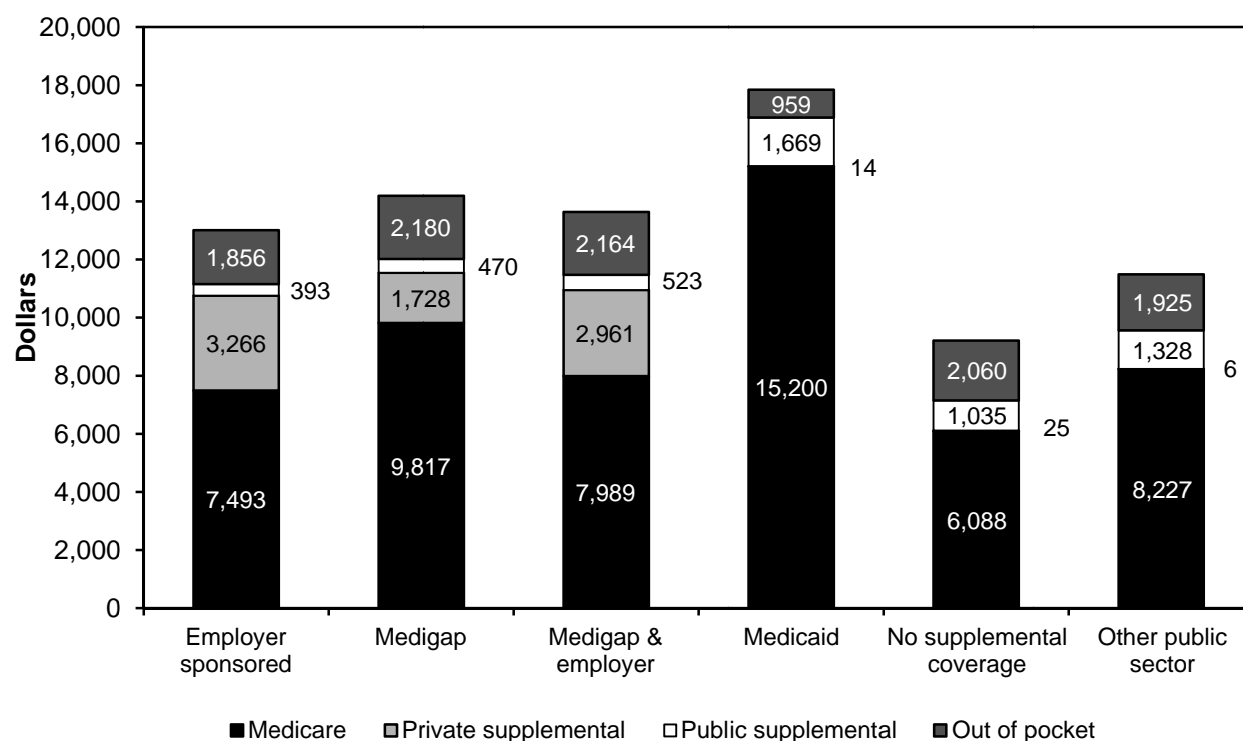


Note: FFS (fee-for-service). Analysis includes FFS beneficiaries not living in institutions such as nursing homes. Out-of-pocket spending is on Medicare cost sharing and noncovered services.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- Total spending on health care services varies dramatically among fee-for-service (FFS) beneficiaries living in the community. Per capita spending for the 10 percent of beneficiaries with the highest total spending averages \$60,774. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averages \$336.
- Among FFS beneficiaries living in the community, Medicare pays a larger percentage as total spending increases, and beneficiaries' out-of-pocket spending is a smaller percentage as total spending increases. For example, Medicare pays 64 percent of total spending for all beneficiaries but pays 75 percent of total spending for the 10 percent of beneficiaries with the highest total spending. Beneficiaries' out-of-pocket spending covers 14 percent of total spending for all beneficiaries but only 9 percent of total spending for the 10 percent of beneficiaries with the highest total spending.

**Chart 5-5. Variation in and composition of total spending among noninstitutionalized FFS beneficiaries, by type of supplemental coverage, 2007**

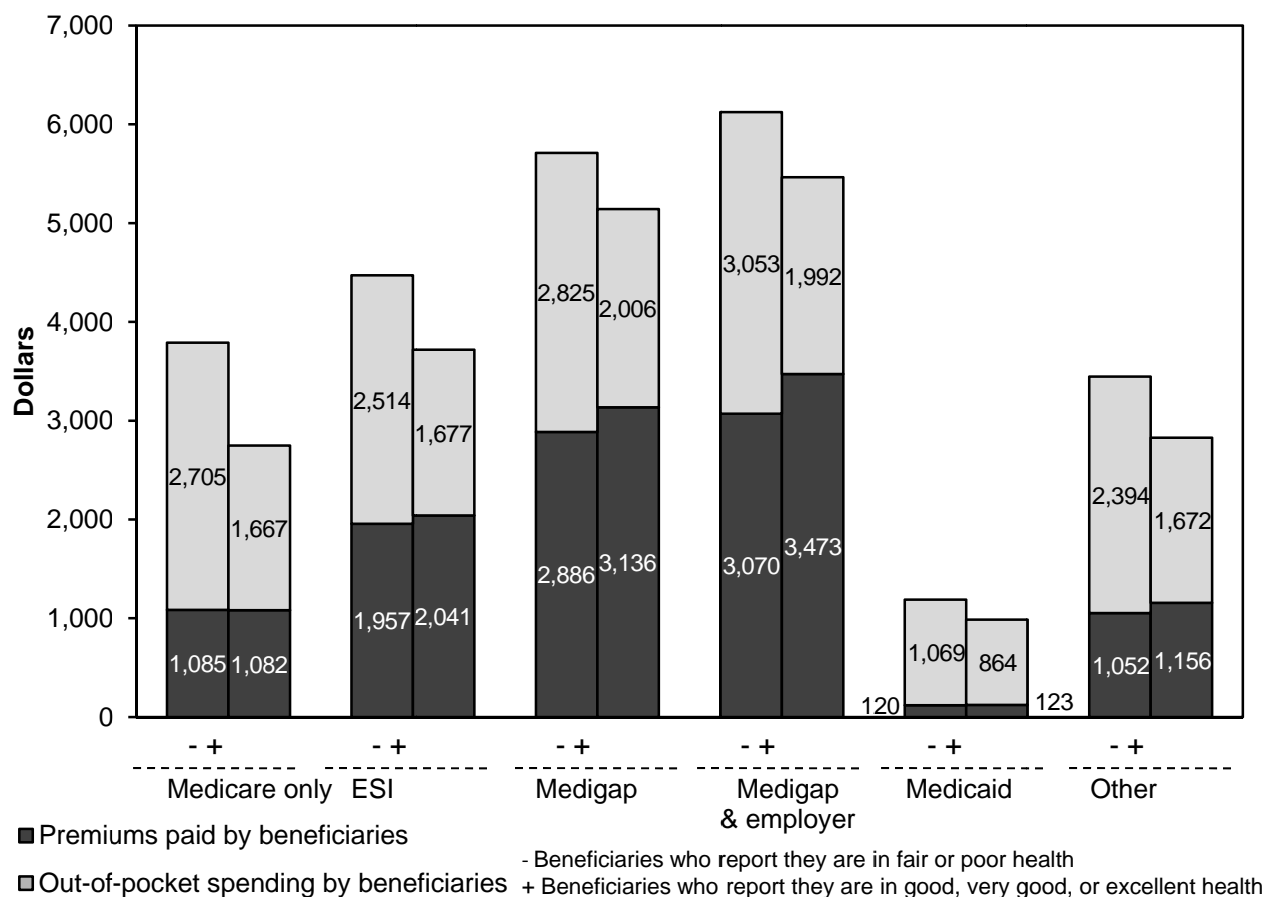


**Note:** FFS (fee-for-service). Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2007. They could have had coverage in other categories throughout 2007. "Other public sector" includes federal and state programs not included in the other categories. "Private supplemental" includes employer-sponsored plans and individually purchased coverage. "Public supplemental" includes Medicaid, Department of Veterans Affairs, and other public coverage. Analysis includes only FFS beneficiaries not living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2007 or had Medicare as a second payer. Out-of-pocket spending is on Medicare cost sharing and noncovered services but not supplemental premiums.

**Source:** MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- The level of total spending (defined as beneficiaries' out-of-pocket spending as well as expenditures by Medicare, other public-sector sources, and all private-sector sources on all health care goods and services) among fee-for-service beneficiaries living in the community varies by the type of supplemental coverage they have. Total spending is much lower for those beneficiaries with no supplemental coverage than for those beneficiaries who have supplemental coverage. Beneficiaries with Medicaid coverage have the highest level of total spending, 94 percent higher than those with no supplemental coverage.
- Medicare is the largest source of payment for beneficiaries in each supplemental insurance category, but the second largest source of payment differs. Among those with employer-sponsored, medigap, medigap plus employer, and Medicaid, supplemental coverage coverage—public and private combined—is the second largest source of payment. However, among those with other public and Medicare-only coverage, beneficiaries' out-of-pocket spending is the second largest source of payment.

**Chart 5-6. Out-of-pocket spending for premiums and health services per beneficiary, by insurance and health status, 2007**



Note: ESI (employer-sponsored supplemental insurance).

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2007.

- This diagram illustrates out-of-pocket spending on services and premiums by beneficiaries' supplemental insurance and health status. For example, beneficiaries who have only traditional Medicare coverage (Medicare only) and report fair or poor health had an average of \$1,085 in out-of-pocket spending on premiums and \$2,705 on services. Those who have Medicare-only coverage and report good, very good, or excellent health had an average of \$1,082 in out-of-pocket spending on premiums and \$1,667 on services.
- Insurance that supplements Medicare does not shield beneficiaries from all out-of-pocket costs. Beneficiaries who report being in fair or poor health spend more out of pocket for health services than those reporting good, very good, or excellent health regardless of the type of coverage they have to supplement Medicare.
- Despite having supplemental coverage, beneficiaries who have employer-sponsored insurance (ESI) or medigap have out-of-pocket spending that is comparable to or more than those who have only coverage under traditional Medicare (Medicare only). This result likely reflects the fact that beneficiaries who have ESI or medigap have higher incomes and are likely to have stronger preferences for health care.
- What beneficiaries actually pay out of pocket varies by type of supplemental coverage. For those with medigap, out-of-pocket spending generally reflects the premiums and costs of services not covered by Medicare. Beneficiaries with ESI usually pay less out of pocket for Medicare noncovered services than those with medigap but may pay more in Medicare deductibles and cost sharing.

## **Web links. Medicare beneficiary and other payer financial liability**

- Chapter 1 of the MedPAC March 2011 Report to the Congress provides more information on Medicare program spending.

[www.medpac.gov/chapters/Mar11\\_ch01.pdf](http://www.medpac.gov/chapters/Mar11_ch01.pdf)

- Chapter 1 of the MedPAC March 2010 Report to the Congress provides more information on Medicare program spending.

[www.medpac.gov/chapters/Mar10\\_ch01.pdf](http://www.medpac.gov/chapters/Mar10_ch01.pdf)

- Chapter 1 of the MedPAC March 2009 Report to the Congress provides more information on Medicare program spending.

[http://www.medpac.gov/chapters/Mar09\\_ch01.pdf](http://www.medpac.gov/chapters/Mar09_ch01.pdf)

- Chapter 3 of the MedPAC June 2011 Report to the Congress discusses beneficiaries' supplemental coverage, cost sharing, and health care use as well as program spending.

[http://medpac.gov/chapters/Jun11\\_ch03.pdf](http://medpac.gov/chapters/Jun11_ch03.pdf)

- Chapter 2 of the MedPAC June 2010 Report to the Congress discusses the effect supplemental coverage has on beneficiaries' cost sharing, their health care use, and program spending.

[www.medpac.gov/chapters/Jun10\\_ch02.pdf](http://www.medpac.gov/chapters/Jun10_ch02.pdf)

- Appendix B of the MedPAC June 2004 Report to the Congress and Chapter 1 of the MedPAC June 2002 Report to the Congress provide more information on Medicare beneficiary and other payer financial liability.

[www.medpac.gov/publications/congressional\\_reports/June04\\_AppB.pdf](http://www.medpac.gov/publications/congressional_reports/June04_AppB.pdf)

[www.medpac.gov/publications/congressional\\_reports/Jun2\\_Ch1.pdf](http://www.medpac.gov/publications/congressional_reports/Jun2_Ch1.pdf)



SECTION

# 6

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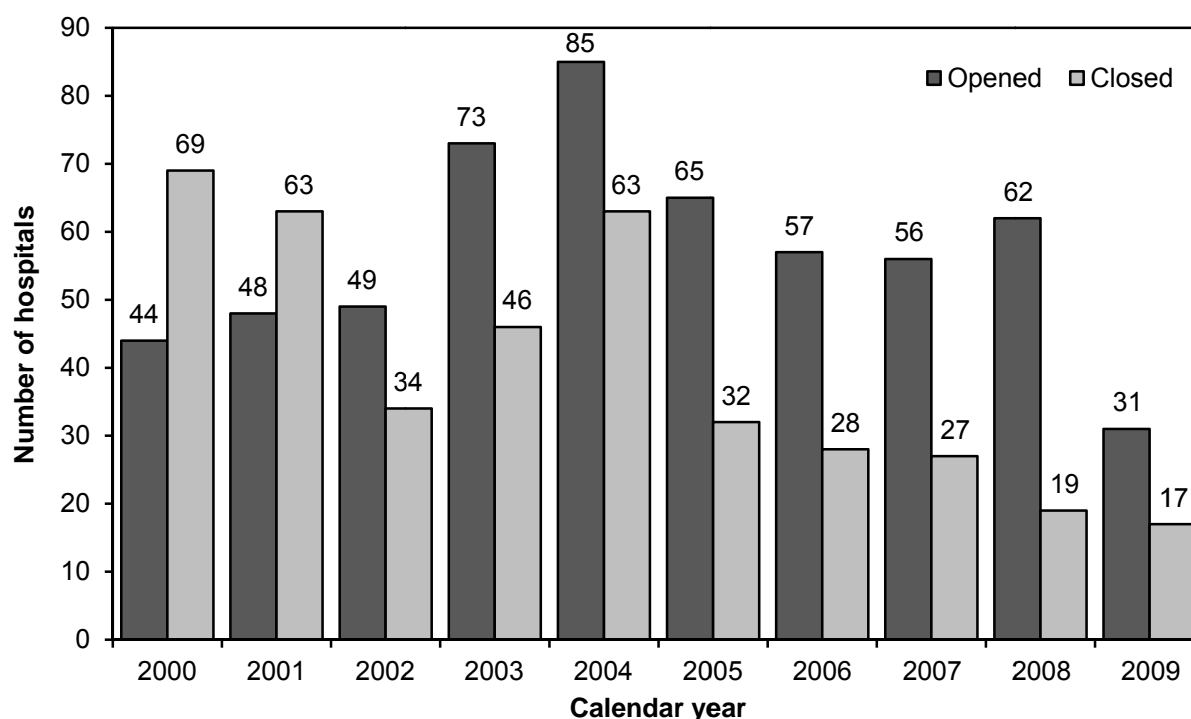
**Acute inpatient services**  
**Short-term hospitals**  
**Specialty psychiatric facilities**

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**Chart 6-1. Annual changes in number of acute care hospitals participating in the Medicare program, 2000–2009**



Note: Openings and closures exclude hospitals converting to long-term care hospitals and critical access hospitals. Closures include voluntary and involuntary terminations.

Source: MedPAC analysis of the Provider of Service file from CMS.

- The number of hospital openings exceeded the number of closures for the seventh consecutive year. In 2009, 31 acute care hospitals began participating in the Medicare program and 17 terminated.
- Overall, the number of acute care hospitals increased from 2008 to 2009. In 2009, 4,846 acute care hospitals (including critical access hospitals) participated in Medicare.

**Chart 6-2. Percent change in hospital employment, by occupation, 2007–2009**

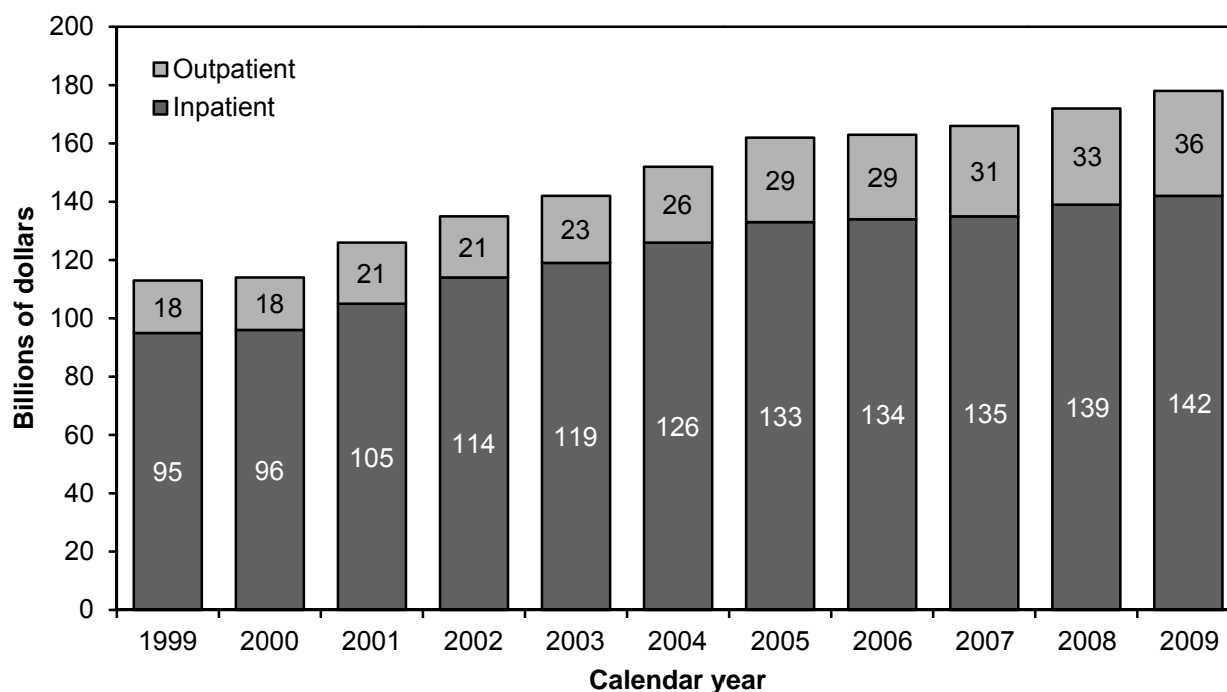
	Total U.S. employment (May 2007)	Total U.S. employment (May 2009)	Percent change in total employment (2007–2009)
All hospital occupations	4,973,020	5,174,240	4.1%
Diagnostic sonographer	27,450	30,490	11.1
Computer and math science	50,060	55,180	10.2
Management	168,070	182,870	8.8
Pharmacist	52,720	57,230	8.6
Business and finance	87,870	95,250	8.4
Social work	94,550	102,230	8.1
Radiology technician	120,050	127,820	6.5
Registered nurse	1,409,220	1,492,000	5.9
Nuclear medical technician	13,240	13,970	5.5
Support	633,920	646,110	1.9
Office or administrative	747,960	759,580	1.6
LPN or LVN	166,930	158,390	–5.2

Note: LPN (licensed practical nurse), LVN (licensed vocational nurse).

Source: MedPAC analysis of Bureau of Labor Statistics, Occupational Employment Statistics data set as of December 2010.

- In general, changes reported here continue trends we observed last year.
- From May 2007 to May 2009, hospital employment increased 4.1 percent. By the end of this period the hospital industry employed more than 5 million individuals.
- The number of diagnostic sonographers employed by the hospital industry increased more rapidly than any other occupation from 2007 to 2009, at 11.1 percent. Growth was also above average for other imaging-related occupations, such as radiology technicians (6.5 percent).
- The number of computer and math science staff at hospitals increased rapidly from May 2007 to May 2009, at 10.2 percent. Growth of this occupation may be related to the surge in interest in installing electronic health record systems in hospitals.
- Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs) were among the few occupations to experience a decline in the number of individuals employed by hospitals from 2007 to 2009, declining by 5.2 percent (8,540 LPNs and LVNs). During the same time period, the number of registered nurses employed by hospitals increased 5.9 percent (82,780 registered nurses), suggesting a shift toward nurses with a higher level of training.

**Chart 6-3. Growth in Medicare's FFS payments for hospital inpatient and outpatient services, 1999–2009**



Note: FFS (fee-for-service). Analysis includes inpatient services covered by the acute inpatient prospective payment system (PPS); psychiatric, rehabilitation, long-term care, cancer, and children's hospitals and units; outpatient services covered by the outpatient PPS; and other outpatient services. Payments include program outlays and beneficiary cost sharing. The growth in spending was slowed in 2006 by large increases in the number of Medicare Advantage enrollees, who are not included in these aggregate totals.

Source: CMS, Office of the Actuary.

- Aggregate Medicare fee-for-service (FFS) inpatient spending was \$142 billion and outpatient spending was \$36 billion in 2009. From 2008 to 2009, inpatient spending increased about 2 percent, while outpatient spending increased about 10 percent.
- A freeze in inpatient payment rates in the Balanced Budget Act of 1997 reduced inpatient spending growth from 1999 to 2000. Spending increased substantially between 2001 and 2004 but reverted to relatively slow growth from 2005 to 2007 because a large number of beneficiaries switched from traditional FFS Medicare to the Medicare Advantage program. More rapid payment growth resumed in 2008 for inpatient and outpatient services.
- Outpatient spending has increased as a share of total hospital-based spending in the last 10 years. In 1999, outpatient spending accounted for almost 16 percent of all hospital spending; in 2009, outpatient spending grew to more than 20 percent of total hospital spending.
- Outpatient spending per FFS beneficiary was about \$1,133 in 2009, up from approximately \$590 in 1999, a 93 percent increase.

**Chart 6-4. Proportion of Medicare acute care hospital inpatient discharges by hospital group, 2009**

Hospital group	Hospitals		Medicare discharges	
	Number	Share of total	Number (thousands)	Share of total
All PPS hospitals and CAHs	4,660	100.0%	10,781	100.0%
PPS hospitals	3,370	72.3	10,373	96.2
Urban	2,402	51.6	8,896	82.5
Large urban	1,310	28.1	4,877	45.2
Other urban	1,092	23.4	4,020	37.3
Rural (excluding CAHs)	968	20.8	1,477	13.7
Rural referral	124	2.7	386	3.6
Sole community	394	8.5	602	5.6
Medicare dependent	195	4.2	216	2.0
Other rural <50 beds	102	2.2	47	0.4
Other rural ≥50 beds	153	3.3	226	2.1
Voluntary	1,969	42.3	7,442	69.0
Proprietary	824	17.7	1,637	15.2
Government	577	12.4	1,294	12.0
Major teaching	269	5.8	1,572	14.6
Other teaching	762	16.4	3,732	34.6
Nonteaching	2,339	50.2	5,070	47.0
CAHs	1,290	27.7	408	3.8

Note: PPS (prospective payment system), CAH (critical access hospital). Analysis includes all hospitals covered by Medicare's inpatient PPS along with CAHs. Maryland hospitals are excluded. Large urban areas have populations of more than 1 million. Major teaching hospitals are defined by a ratio of interns and residents to beds of at least 0.25. Other teaching hospitals have a ratio below 0.25. Data are limited to providers with complete cost reports in the CMS database. See Chart 6-24 for more information about CAHs. Numbers may not sum to totals due to rounding. Sample of hospitals limited to those with complete hospital cost reports in 2009.

Source: MedPAC analysis of PPS impact files and Medicare cost report data from CMS.

- In 2009, 3,370 hospitals provided 10.4 million discharges under Medicare's acute inpatient prospective payment system (IPPS) and 1,290 critical access hospitals (CAHs) provided more than 0.4 million discharges. The number of PPS discharges declined from 2008 primarily due to a shift in services from the inpatient to the outpatient setting.
- Approximately 15 percent of all hospitals are covered by three special payment provisions (rural referral centers, sole community hospitals (SCHs), and small rural Medicare-dependent hospitals (MDHs)) intended to help rural facilities that are not CAHs; these facilities account for more than 11 percent of all discharges. The number of these hospitals increased approximately 1 percent from 2008 to 2009.
- About 88 percent of rural hospitals were CAHs, SCHs, MDHs, or rural referral centers in 2009. Collectively, these four types of hospitals provide 86 percent of all rural discharges.

**Chart 6-5. Major diagnostic categories with highest volume, fiscal year 2009**

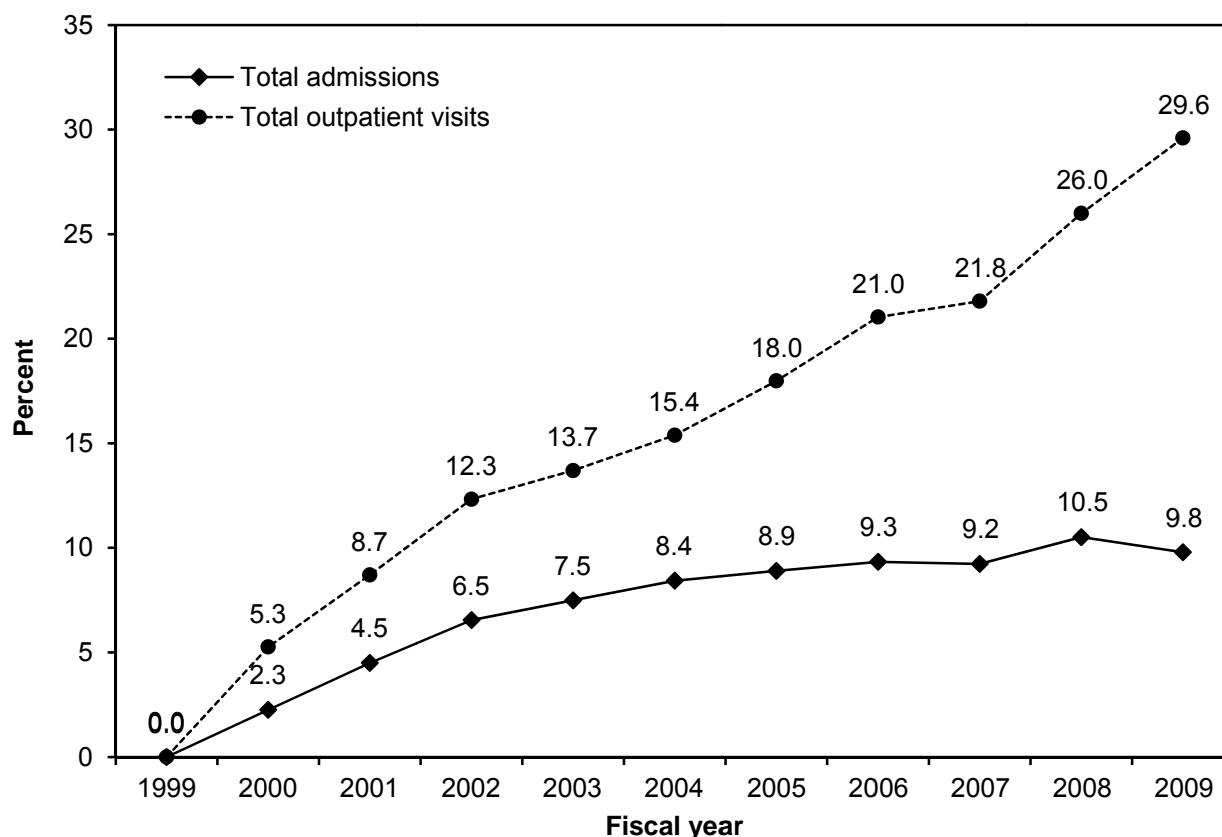
MDC number	MDC name	Share of all discharges	Share of medical discharges	Share of surgical discharges
5	Circulatory system	25%	23%	27%
4	Respiratory system	14	19	3
8	Musculoskeletal system and connective tissue	12	4	34
6	Digestive system	11	11	10
1	Nervous system	8	9	5
11	Kidney and urinary tract	7	8	4
18	Infectious and parasitic diseases	5	6	2
10	Endocrine, nutritional, and metabolic diseases and disorders	4	5	2
7	Hepatobiliary system and pancreas	3	2	4
9	Skin, subcutaneous tissue, and breast	3	3	2
	Total	92	91	93

Note: MDC (major diagnostic category). Numbers may not sum to totals due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- In fiscal year 2009, 10 major diagnostic categories accounted for 92 percent of all discharges at hospitals paid under the acute inpatient prospective payment system.
- Circulatory system cases accounted for about one-quarter of medical cases and almost 30 percent of surgical cases.
- Respiratory system cases accounted for nearly 20 percent of medical discharges.
- Musculoskeletal system cases accounted for 34 percent of surgical discharges.

**Chart 6-6. Cumulative change in total admissions and total outpatient visits, 1999–2009**

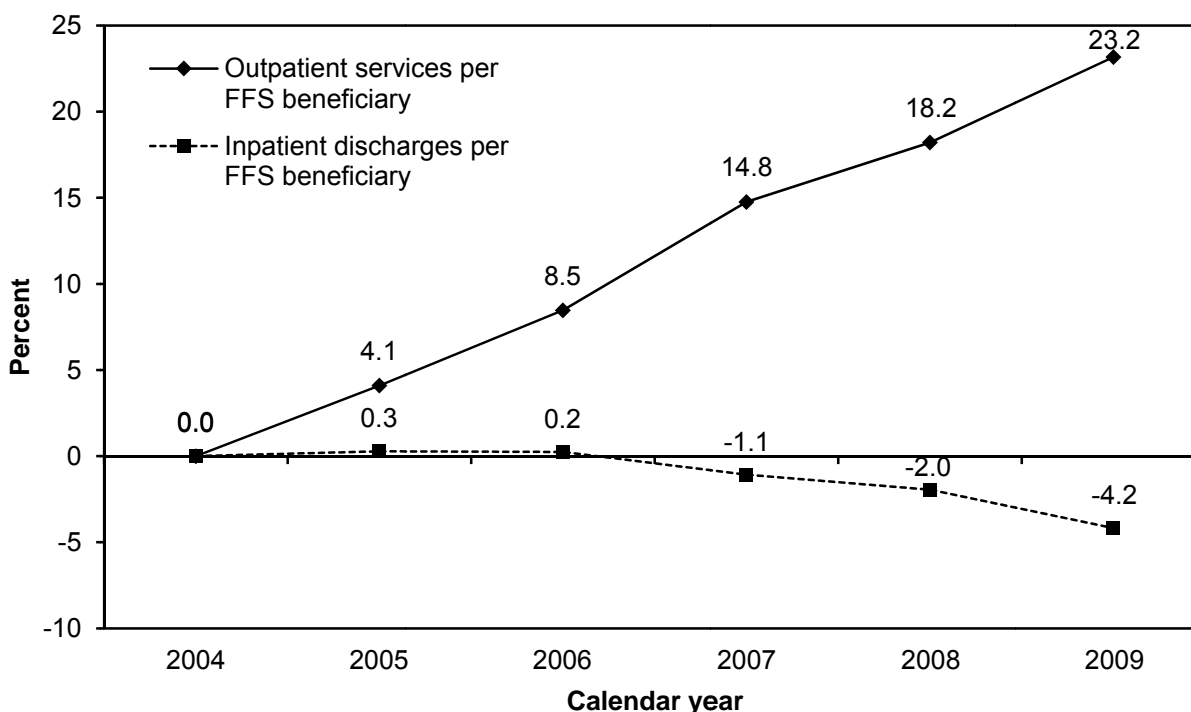


Note: Cumulative change is the total percent increase from 1999 through 2009. Data are admissions (all payers) to and outpatient visits at about 5,000 community hospitals.

Source: American Hospital Association, AHA Hospital Statistics.

- Hospital outpatient service use grew much more rapidly from 1999 to 2009 than inpatient service use. Total hospital outpatient visits increased about 30 percent from 1999 to 2009, while total admissions grew nearly 10 percent.
- There were 641 million outpatient visits and nearly 36 million admissions to community hospitals in 2009.
- The cumulative percent change in total outpatient visits increased by nearly 4 percentage points from 2008 to 2009, or nearly 18 million visits.
- The cumulative percent change in inpatient admissions decreased by 0.7 percentage point from 2008 to 2009, or more than 230,000 admissions. It was the largest single-year decrease in the last 10 years. Inpatient admission declined only slightly from 2006 to 2007.

**Chart 6-7. Cumulative change in Medicare outpatient services and inpatient discharges per FFS beneficiary, 2004–2009**

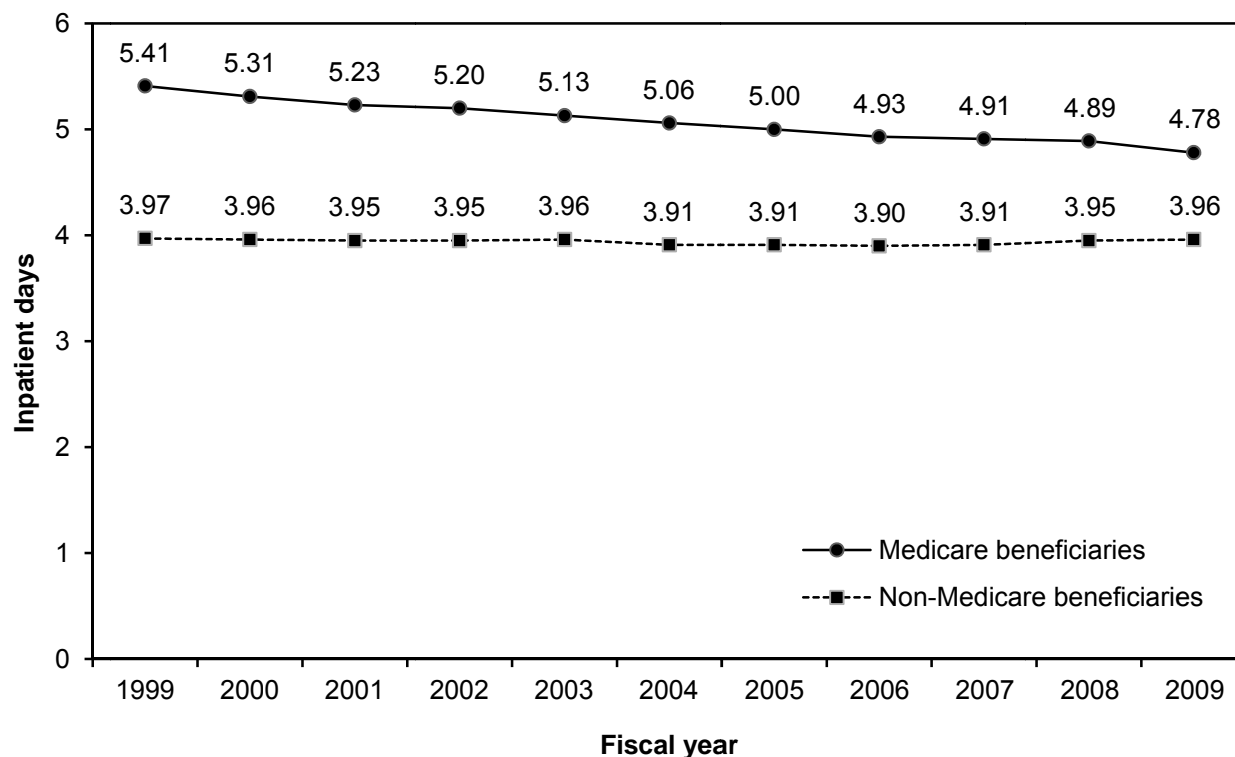


Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

Source: MedPAC analysis of MedPAR and hospital outpatient claims data from CMS.

- From 2004 to 2009, the number of Medicare inpatient discharges per fee-for-service (FFS) beneficiary declined 4.2 percent. From 2004 to 2006, inpatient volume per beneficiary was relatively flat, but beginning in 2007, the volume of discharges began to decline.
- From 2004 to 2009, the number of outpatient services per FFS beneficiary increased more than 23 percent.
- Together these two trends suggest a shift in services from the inpatient to the outpatient setting.

**Chart 6-8. Trends in Medicare inpatient and non-Medicare inpatient length of stay, 1999–2009**



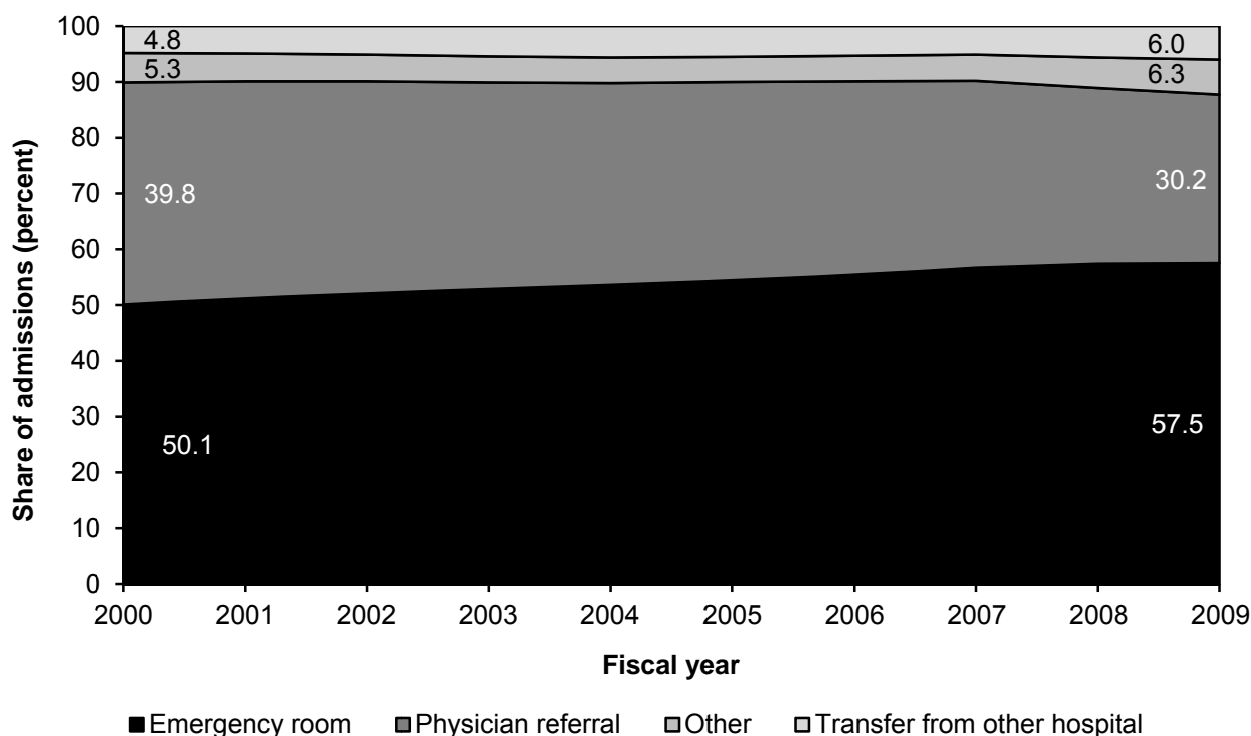
Note: Length of stay is calculated from discharges and patient days for more than 3,000 hospitals covered by the acute inpatient prospective payment system. Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data from CMS.

- Length of stay for Medicare inpatients was nearly 1 day longer than for non-Medicare inpatients in 2009.
- Length of stay for Medicare inpatients fell nearly 12 percent, from 5.41 days in 1999 to 4.78 days in 2009, dropping at an average annual rate of 1.2 percent from 1999 to 2009.
- Length of stay for all non-Medicare inpatients remained nearly unchanged at 3.96 days between 1999 and 2009.



**Chart 6-9. Source of inpatient hospital admissions, 2000–2009**

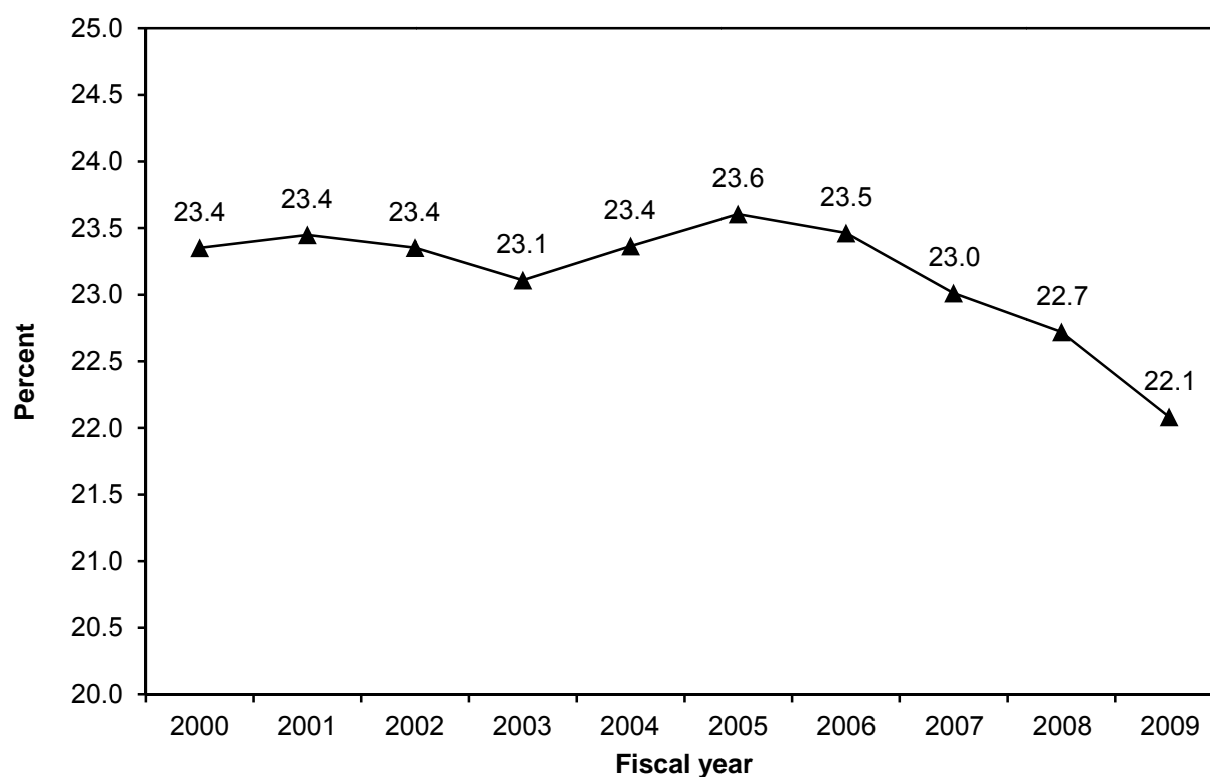


Note: "Other" includes clinic referral, health maintenance organization, transfer from skilled nursing facility, transfer from other provider, transfer from within the same hospital, court/legal, and no information.

Source: MedPAC analysis of MedPAR data from CMS.

- Hospitals report that most Medicare beneficiaries they admit as inpatients are admitted through hospital emergency rooms or directly from a referring physician. In 2009, nearly 58 percent of hospitalized patients were admitted through the emergency room and 30 percent through a physician. Note that not all emergency room admissions are emergency situations.
- The share of Medicare beneficiaries admitted to the hospital through the emergency room increased from approximately 50 percent to 58 percent from 2000 to 2009, nearly a 15 percent increase.
- The share of Medicare beneficiaries admitted to the hospital through a referring physician declined from approximately 40 percent to 30 percent from 2000 to 2009, a 24 percent decrease.
- Despite accounting for a relatively smaller share of all admissions, the share of Medicare beneficiaries admitted as transfers from other acute care hospitals increased from 4.8 percent to 6 percent, a 25 percent increase.
- On a per beneficiary basis, admissions through the emergency room increased from approximately 184 per 1,000 beneficiaries in 2000 to 205 per 1,000 beneficiaries in 2009, an 11.4 percent increase. In contrast, admissions from direct physician referral declined from 147 per 1,000 beneficiaries in 2000 to 108 per 1,000 beneficiaries in 2009, a 26.5 percent decline. In addition, admissions resulting from a transfer from another hospital increased from approximately 18 per 1,000 beneficiaries in 2000 to 21 per 1,000 beneficiaries in 2009, a 20.3 percent increase.

**Chart 6-10. Share of Medicare Part A beneficiaries with at least one hospitalization, 2000–2009**

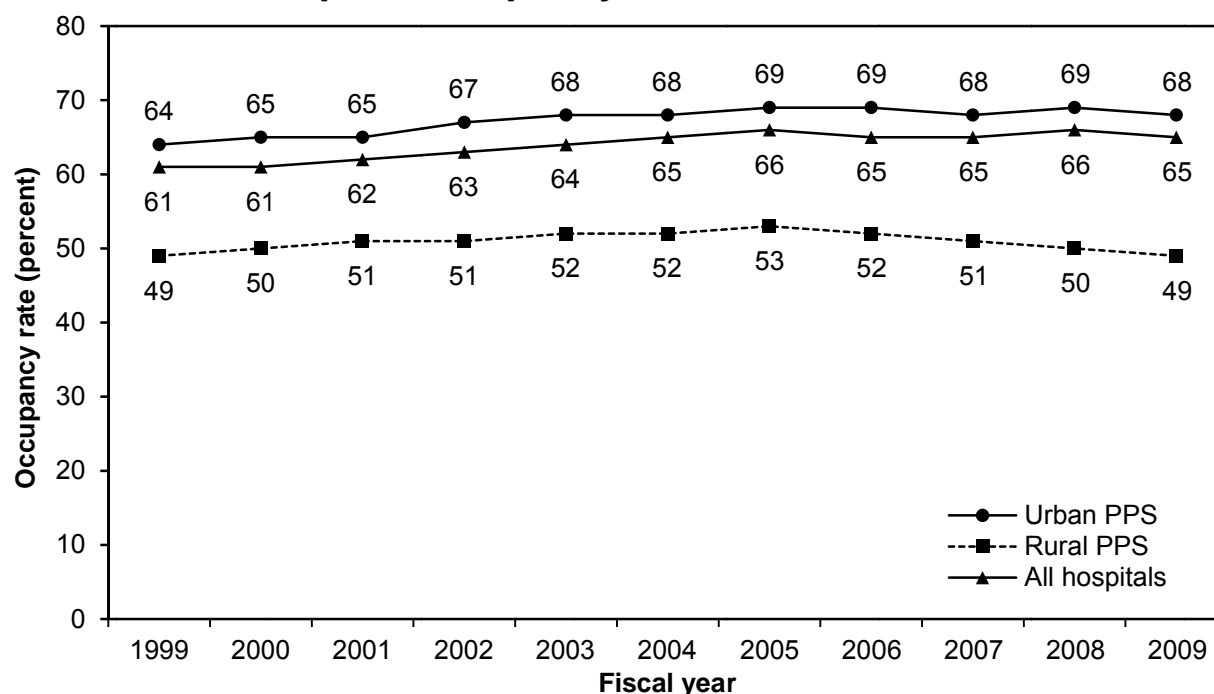


Note: Analysis excludes Medicare Advantage claims and claims for non-inpatient prospective payment system hospitals, such as critical access hospitals and hospitals located in Maryland.

Source: MedPAC analysis of MedPAR data from CMS.

- The share of Medicare beneficiaries with Part A coverage who had at least one inpatient hospitalization in a given year declined by 1.5 percentage points from 2005 to 2009. In 2009, approximately 22 percent of Medicare beneficiaries had at least one inpatient stay covered under Part A.
- Since 2005, the decline in the share of Medicare Part A beneficiaries using inpatient hospital care may be in part attributable to the rapid shift of surgical cases from the inpatient setting to the outpatient setting. In the inpatient setting, the number of surgical cases per beneficiary declined more rapidly than medical cases from 2005 to 2009, at 9.3 percent and 3.8 percent, respectively.

**Chart 6-11. Hospital occupancy rates, 1999–2009**



Note: PPS (prospective payment system). Hospital occupancy rate is measured as total inpatient days as a percent of total available bed days in the hospital over the reporting period. Bed days available are based on beds that are set up and staffed for inpatient service (i.e., the units are open and operating), but the beds may not be staffed for a full patient load in each unit on a given day. Hospitals' group designations for the entire 1999–2009 period are based on their status at the end of 2009.

Source: MedPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

- In the aggregate, hospitals' occupancy rates have been relatively stable at around 65 percent or 66 percent each year from 2004 to 2009. In 2009, occupancy rates were 65 percent. Earlier in the decade, hospital occupancy rates hovered around the low 60s.
- Occupancy rates are higher in urban than in rural hospitals; in 2009, occupancy rates stood at 68 percent for urban hospitals and 49 percent for rural hospitals, a 19 percentage point difference.
- Occupancy rates may understate overall facility occupancy levels because they do not include outpatient observation cases, which are often placed in beds counted as inpatient bed space.

**Chart 6-12. Medicare inpatient payments, by source and hospital group, 2009**

Hospital group	Percent of total payments					Total payments (millions)
	Base	IME	DSH	Outlier	Additional rural hospital*	
All hospitals	81.1%	5.0%	9.4%	3.6%	1.0%	\$110,019
Urban	80.5	5.5	9.8	3.9	0.3	98,622
Rural	85.7	0.7	5.4	1.2	7.0	11,396
Large urban	78.8	6.6	10.3	4.2	0.1	57,018
Other urban	82.8	3.9	9.2	3.5	0.7	41,604
Rural referral	89.1	1.1	7.9	2.0	0.0	3,173
Sole community	81.9	0.9	2.5	0.6	14.2	5,039
Medicare dependent	85.2	0.0	7.8	1.1	5.9	1,420
Other rural <50 beds	91.5	0.2	7.3	1.1	0.0	262
Other rural ≥50 beds	90.6	0.4	7.0	2.0	0.0	1,501
Voluntary	81.6	5.3	8.5	3.6	1.0	80,072
Proprietary	84.3	1.3	11.1	2.9	0.5	15,418
Government	74.6	7.0	12.5	4.3	1.6	14,528
Major teaching	66.3	16.1	12.2	5.3	0.1	24,756
Other teaching	83.0	3.7	9.3	3.4	0.6	40,191
Nonteaching	87.4	0.0	7.9	2.8	1.9	45,072

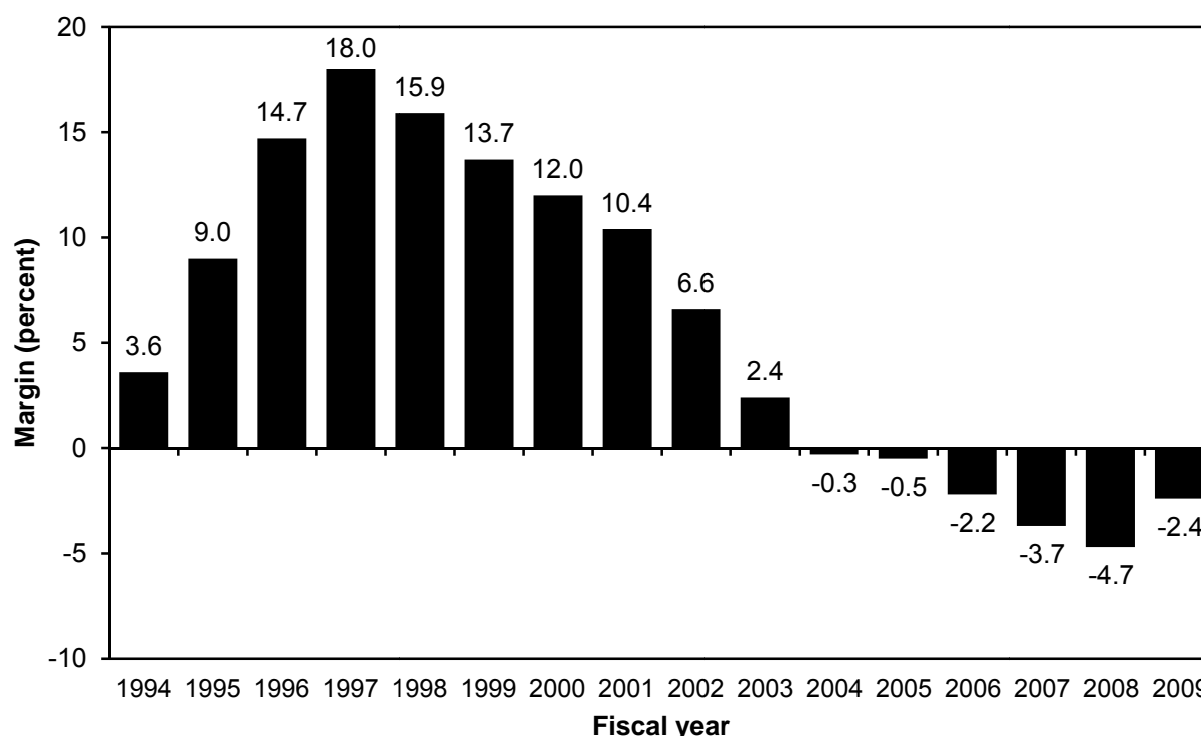
Note: IME (indirect medical education), DSH (disproportionate share). Analysis includes all hospitals covered by Medicare's acute inpatient prospective payment system (PPS). Includes both operating and capital payments but excludes direct graduate medical education payments. Simulated payments reflect 2009 payment rules applied to actual number of cases in 2009. Excludes critical access hospitals and their special payments. Sole community hospital and Medicare-dependent hospital categories include facilities paid at either the special nonfederal rate or the federal rate. Rows may not sum to 100 percent due to rounding.

\*Payments received by sole community and Medicare-dependent hospitals beyond what would have been received under PPS. A few sole community hospitals are located in urban areas.

Source: MedPAC analysis of claims and impact file data from CMS.

- Medicare inpatient payments in 2009 to hospitals covered by the acute inpatient prospective payment system totaled more than \$110 billion. About \$99 billion (90 percent) was paid to hospitals located in urban areas and \$11.4 billion went to rural hospitals. This figure does not reflect more than \$2.7 billion in payments to critical access hospitals (CAHs) for inpatient care.
- Special payments—which include indirect medical education, disproportionate share, and outlier payments as well as additional payments to rural hospitals through the sole community hospital (SCH) and Medicare-dependent hospital (MDH) programs—account for 19 percent of all inpatient payments. This proportion is higher for urban (19.5 percent) than for rural hospitals (14.3 percent). This definition of special payments does not include wage index adjustments or CAHs' cost-based payments.
- The SCH and MDH categories above include hospitals paid at either the hospital-specific rate or the federal rate. Among the subgroup of SCHs and MDHs paid at the hospital-specific rate, the share of payments described as additional rural hospital payments was higher, 20.7 percent for SCHs and 11.4 percent for MDHs. Additional rural hospital payments increased in 2009 as a result of the rebasing of cost-based payment rates to a more current year.
- Outlier payments accounted for 3.6 percent of total inpatient payments in 2009. The legislative mandate for the level of outlier payments uses a different calculation, displaying outlier payments as a ratio of outlier payments to base payments plus outlier payments. Measured in this way, CMS's outlier share ratio was 5.3 percent in fiscal year 2009, close to the annual goal of 5.1 percent.

**Chart 6-13. Medicare acute inpatient PPS margin, 1994–2009**

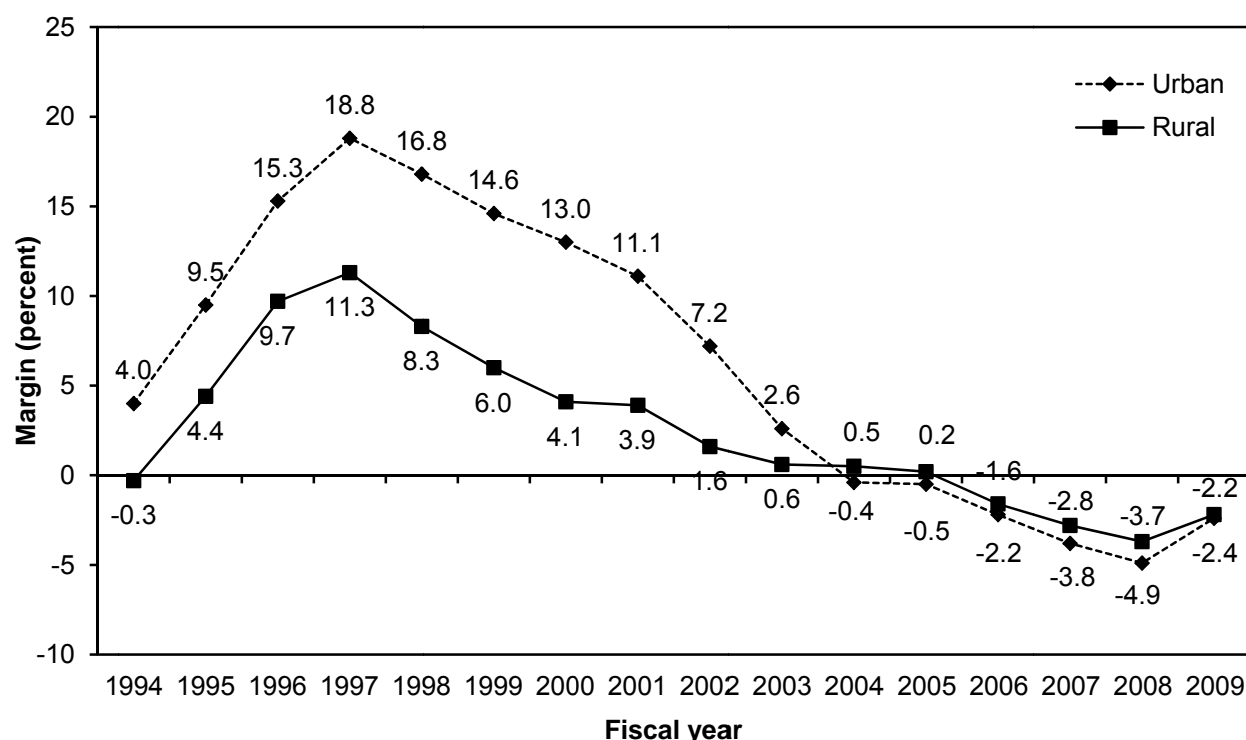


Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- Medicare's acute inpatient margin reflects payments and costs for services covered by Medicare's inpatient hospital prospective payment system. The inpatient margin may be influenced by how hospitals allocate overhead costs across service lines. Only by combining data for all major services can we estimate Medicare costs without the potential influence of how overhead costs are allocated (see Chart 6-15).
- The Medicare inpatient margin reached a record high of 18.0 percent in 1997. After implementation of the Balanced Budget Act of 1997, however, inpatient margins declined over the next 10 years as costs rose faster than the 3 percent average annual increase in Medicare payments. In 2009, the margin was –2.4 percent, up more than 2 percentage points from 2008.
- Medicare inpatient margins vary widely. In 2009, one-quarter of hospitals had Medicare inpatient margins that were 7.9 percent or higher, and another quarter had inpatient margins that were –17.9 percent or lower. This range amounts to a 26 percentage point difference in performance between the top and bottom quartiles in 2009. Forty-two percent of hospitals had positive inpatient Medicare margins in 2009.

**Chart 6-14. Medicare acute inpatient PPS margin, by urban and rural location, 1994–2009**

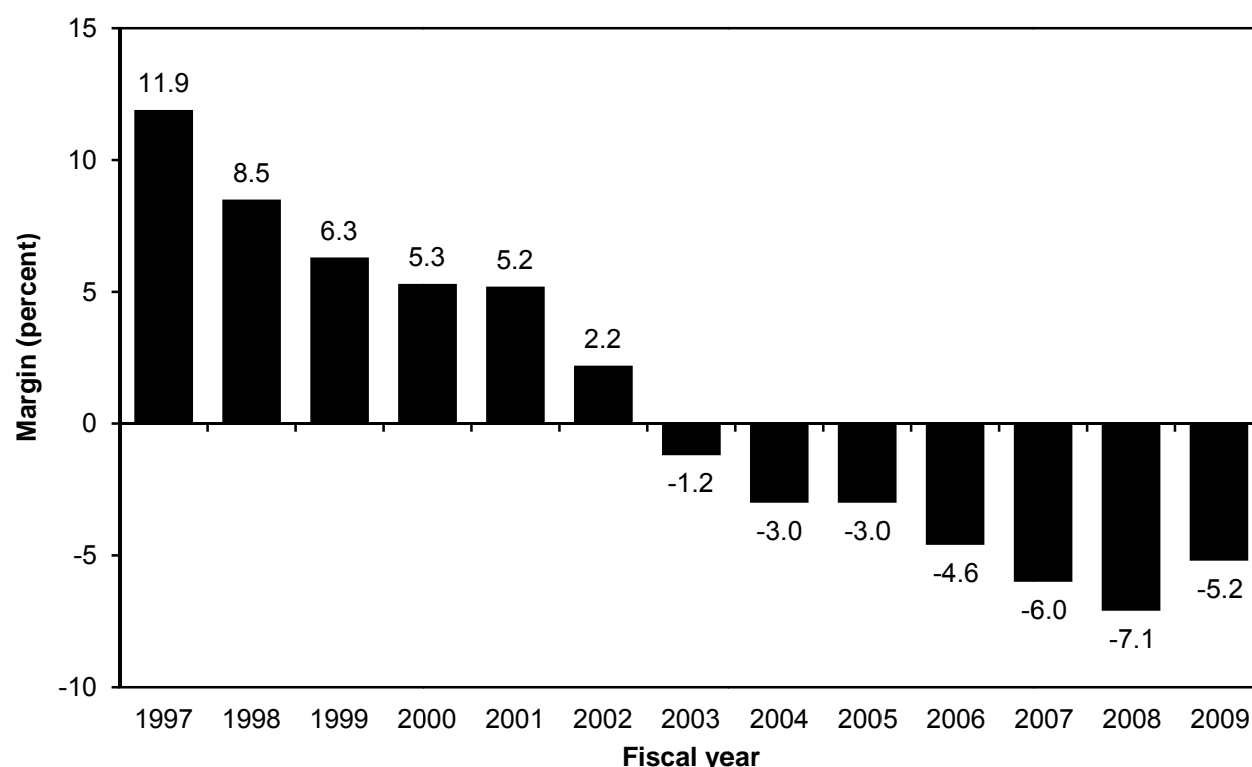


Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- Urban hospitals historically had much higher Medicare inpatient margins than rural hospitals, but this difference narrowed earlier in this decade and today urban hospital margins are lower than those for rural hospitals.
- The gap between urban and rural hospitals' inpatient margins grew between 1994 and 2000. One factor in this divergence in this period is that urban hospitals had greater success in controlling cost growth, at least partly in response to pressures from managed care. From 2001 to 2004, the difference narrowed and from 2004 to 2008 rural hospitals' inpatient margins were slightly higher than those for urban hospitals. In 2009, the difference between the margins of rural and urban hospitals narrowed further, to -2.2 percent and -2.4 percent, respectively. The narrowing between these two groups of hospitals from 2001 to 2004 is the result of payment policies targeted at raising rural hospital payments and growth in the number of critical access hospitals, which removed many rural hospitals with low margins from the prospective payment system.

**Chart 6-15. Overall Medicare margin, 1997–2009**

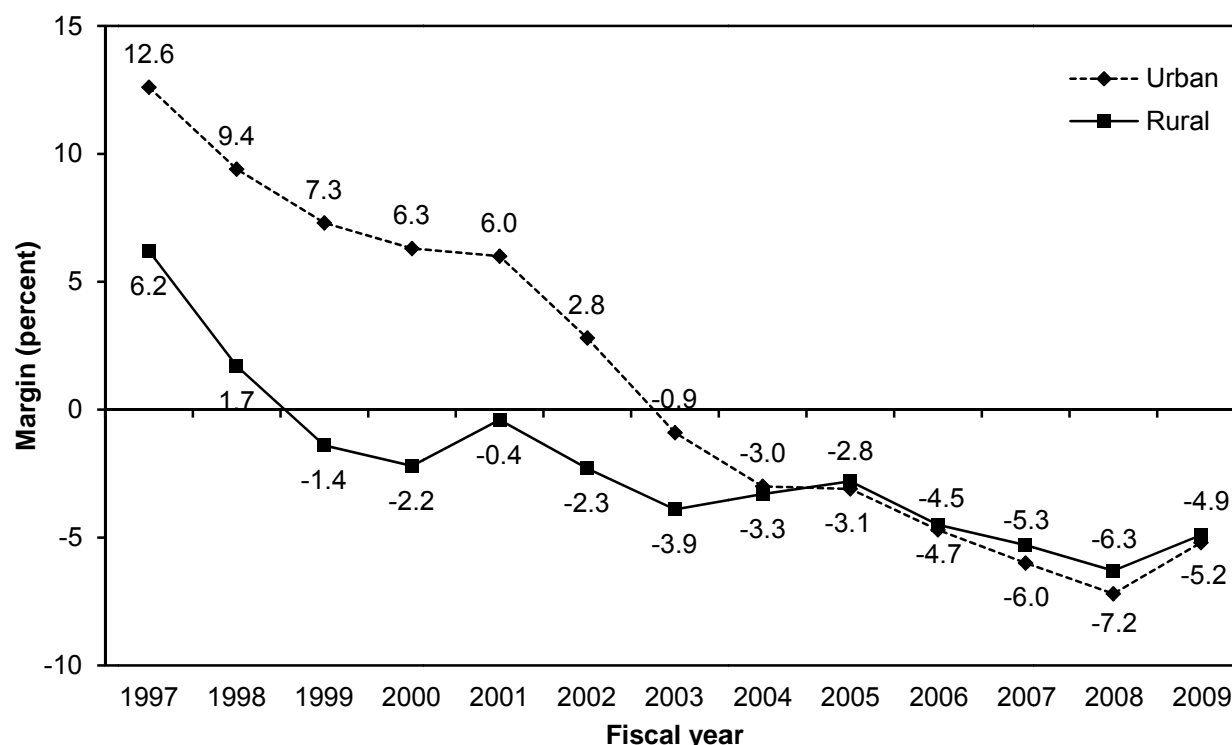


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services as well as graduate medical education and bad debts. Data on overall Medicare margins before 1997 are unavailable.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- The overall Medicare margin incorporates payments and costs for acute inpatient, outpatient, skilled nursing, home health care, and inpatient psychiatric and rehabilitative services as well as direct graduate medical education and bad debts. The overall margin is available only since 1997, but it follows a trend similar to that for the inpatient margin.
- The overall Medicare margin in 1997 was 11.9 percent. In fiscal year 2009, it was –5.2 percent.
- In 2009, one-quarter of hospitals had overall Medicare margins of 4.2 percent or higher, and another quarter had margins of –17.3 percent or lower. Between 2000 and 2008, the difference in performance between the top and bottom quartile widened from 17 percentage points to 22 percentage points but narrowed to 21 percentage points in 2009. About 36 percent of hospitals had positive overall Medicare margins in 2009.

**Chart 6-16. Overall Medicare margin, by urban and rural location, 1997–2009**



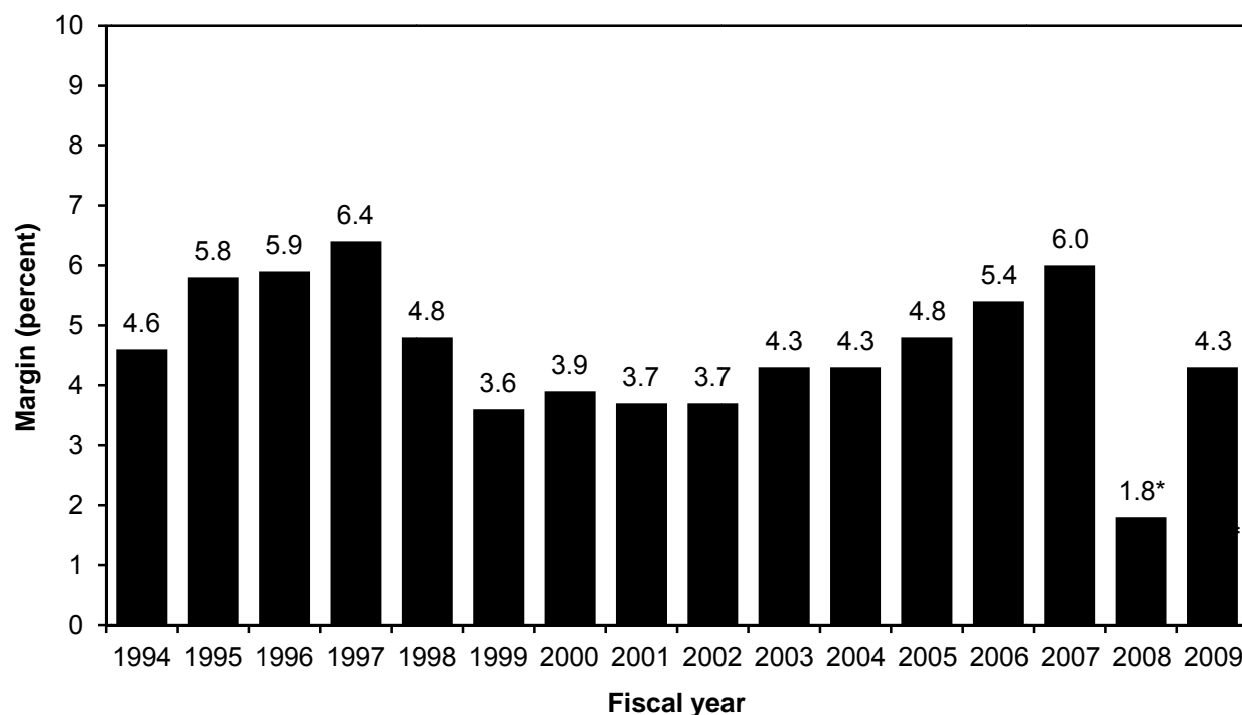
Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services as well as direct graduate medical education and bad debts. Data on overall Medicare margins before 1997 are unavailable.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- As with inpatient margins, overall Medicare margins historically were higher for urban hospitals than for rural hospitals, but since 2005 overall Medicare margins for rural hospitals have gradually begun to slightly exceed those for urban hospitals.
- The difference in overall Medicare margins between urban and rural hospitals grew between 1997 and 2000 but has since narrowed. In 1997, the overall margin for urban hospitals was 12.6 percent, compared with 6.2 percent for rural hospitals. In 2009, the overall Medicare margin for urban hospitals was –5.2 percent, compared with –4.9 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 targeted to rural hospitals helped to improve the relative financial position of rural hospitals. Further legislation to assist rural hospitals was implemented after 2008.



**Chart 6-17. Hospital total all-payer margin, 1994–2009**



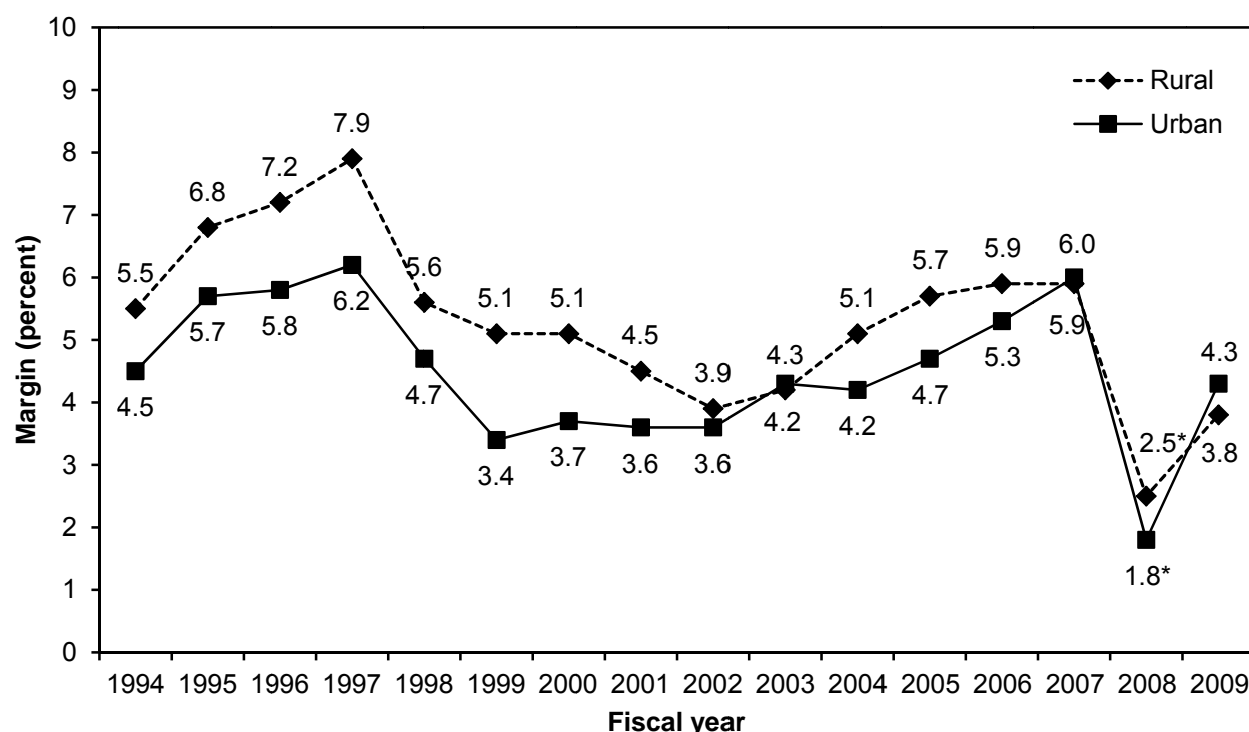
Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

\*The significant drop in total margin includes investment losses stemming from the decline of the U.S. stock market in 2008.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- The total hospital margin for all payers—Medicare, Medicaid, other government, and private payers—reflects the relationship of all hospital revenues to all hospital costs, including inpatient, outpatient, post-acute, and nonpatient services. The total margin also includes nonpatient revenue such as investment revenues. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which resulted in a corresponding decline in total margin. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins that do not include investment revenue.
- The total hospital margin peaked in 1997 at 6.4 percent, before declining to less than 4 percent in the 1999–2002 period. From 2002 to 2007, total margins increased to the highest level in a decade. In 2008, the total margin declined to 1.8 percent, its lowest level since the inpatient prospective payment system was implemented. In 2009, total margin increased again to 4.3 percent.
- In 2009, 68 percent of hospitals had positive total margins. However, the total margin varied much less than the Medicare inpatient or overall Medicare margin. In 2009, one-quarter of prospective payment system hospitals had total margins that were 8.0 percent or higher, while another one-quarter had margins that were –1.7 percent or lower, a spread of roughly 10 percentage points compared with a 26 percentage point spread for Medicare inpatient margins and a 21 percentage point spread for overall Medicare margins.

**Chart 6-18. Hospital total all-payer margin, by urban and rural location, 1994–2009**



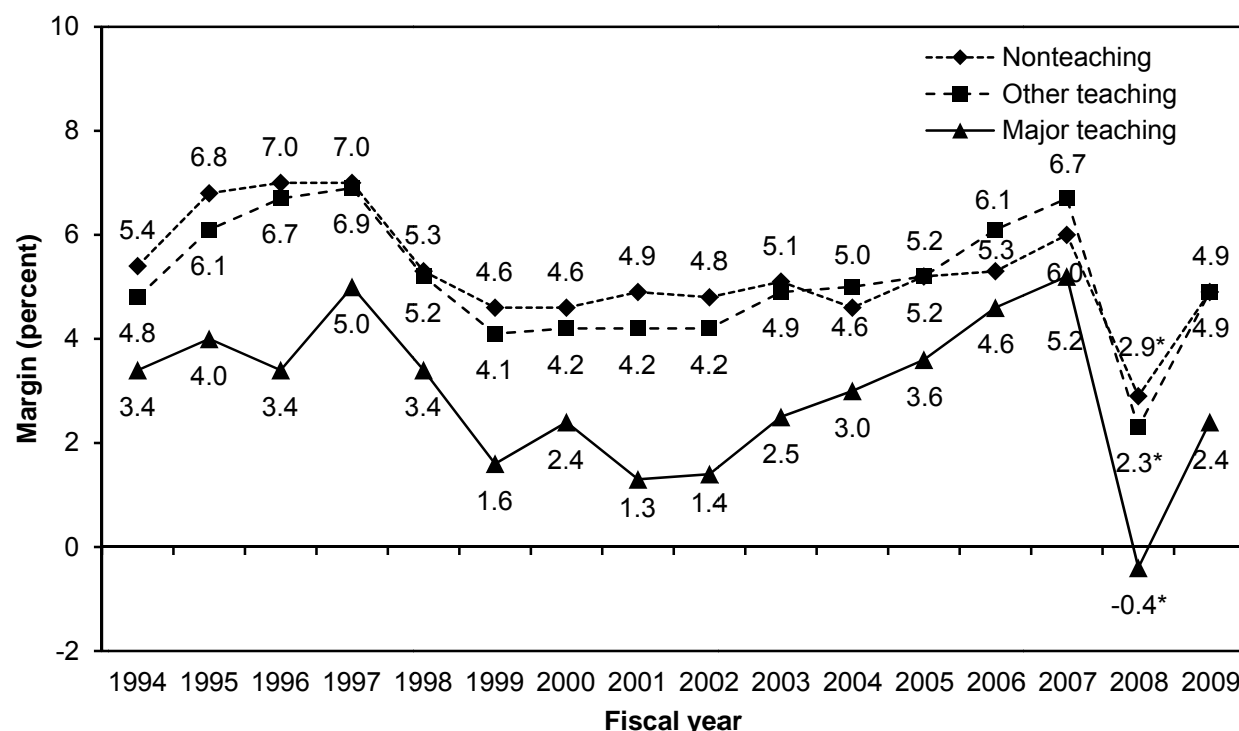
Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment revenues. Analysis excludes critical access hospitals.

\*Significant drop in total margin includes investment losses resulting from the U.S. stock market decline of 2008.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- In 2009, urban hospitals had higher total (all payer) margins than rural hospitals. Total margins were 4.3 percent for urban hospitals and 3.8 percent for rural hospitals. Historically, rural hospitals have usually had higher total margins in aggregate than urban hospitals. The fact that urban hospitals had higher total margins than rural hospitals in 2009 may be associated with urban hospitals' relatively larger investment portfolios and the improved performance of the U.S. stock market that year.
- In 2008, both rural and urban hospitals experienced their lowest level of total (all payer) margins in the last 15 years. Hospitals' total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment revenues. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which resulted in a corresponding decline in total margins. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins that do not include investment revenue.

**Chart 6-19. Hospital total all-payer margin, by teaching status, 1994–2009**



Note: Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio of greater than 0 and less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

\*Significant drop in total margin includes investment losses resulting from the U.S. stock market decline of 2008.

Source: MedPAC analysis of Medicare cost report data (August 2010) from CMS.

- The pattern of total margins by teaching status is the opposite of the pattern for the Medicare inpatient and overall Medicare margins. The total margins for major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals. In 2009, the total margin for major teaching hospitals stood at 2.4 percent compared with other teaching hospitals and nonteaching hospitals at 4.9 percent each.
- In 2007, major teaching hospitals' total (all payer) margins reached their highest level in more than two decades and increased for the fifth consecutive year. However, in 2008, this trend was interrupted by a steep decline in their investment revenues.
- The decline of the U.S. stock market in 2008 resulted in significant investment losses for hospitals, which resulted in a decline in hospitals' total margins. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins and do not include investment revenue.

**Chart 6-20. Medicare margins by teaching and disproportionate share status, 2009**

Hospital group	Share of hospitals	Share of Medicare inpatient payments	Medicare inpatient margin	Overall Medicare margin
All hospitals	100%	100%	-2.4%	-5.2%
Major teaching	9	25	6.7	-0.2
Other teaching	21	34	-3.0	-5.3
Nonteaching	69	42	-7.1	-7.8
Both IME and DSH	26	52	2.2	-2.4
IME only	5	6	-9.1	-10.3
DSH only	53	31	-3.7	-5.5
Neither IME nor DSH	16	10	-18.1	-15.3

Note: IME (indirect medical education), DSH (disproportionate share).

Source: MedPAC analysis of 2009 Medicare cost report data from CMS.

- Major teaching hospitals have the highest Medicare inpatient and overall Medicare margins. Their better financial performance is largely due to the additional payments they receive from the indirect medical education (IME) and disproportionate share (DSH) adjustments.
- Hospitals that receive neither IME nor DSH payments have the lowest Medicare margins. In 2009, the Medicare inpatient margins of these hospitals were nearly 25 percentage points below those of major teaching hospitals and overall Medicare margins were more than 15 percentage points lower.

# **Chart 6-21. Financial pressure leads to lower costs**

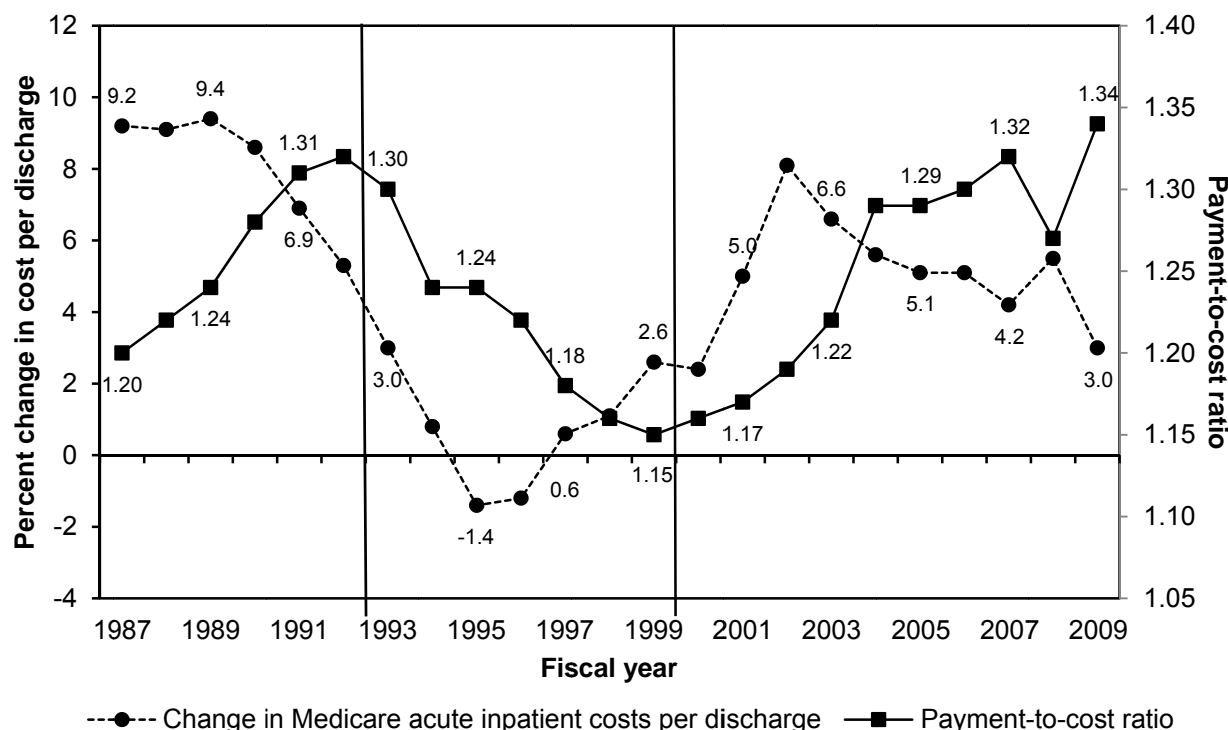
	Level of financial pressure, 2004–2008		
	High pressure (non-Medicare margin $\leq$ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	756	390	1,747
<b>Financial characteristics, 2009</b>			
Non-Medicare margin (private, Medicaid, uninsured)	–3.8%	2.7%	10.7%
Standardized cost per discharge (as a share of the national median)			
Median of for profit and nonprofit	92	96	104
Nonprofit hospital	92	96	105
For-profit hospital	92	92	99
Annual growth in cost per discharge, 2006–2009	4.3%	4.2%	4.6%
Overall 2009 Medicare margin	4.7%	–1.1%	–10.2%
<b>Patient characteristics (medians)</b>			
Total hospital discharges in 2009	5,113	8,183	7,292
Medicare share of inpatient days	43%	42%	43%
Medicaid share of inpatient days	12	11	10
Medicare case mix index	1.33	1.45	1.45

Note: Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effect of teaching and low-income Medicare patients on hospital costs. The sample includes all hospitals that had complete cost reports on file with CMS by August 2010.

Source: MedPAC analysis of Medicare cost report and claims files from CMS.

- Higher financial pressure tends to lead to lower cost growth and lower costs per discharge. Hospitals with lower volume, lower case mix, and higher Medicaid charges are more likely to be under financial pressure.

**Chart 6-22. Change in Medicare hospital inpatient costs per discharge and private payer payment-to-cost ratio, 1987–2009**

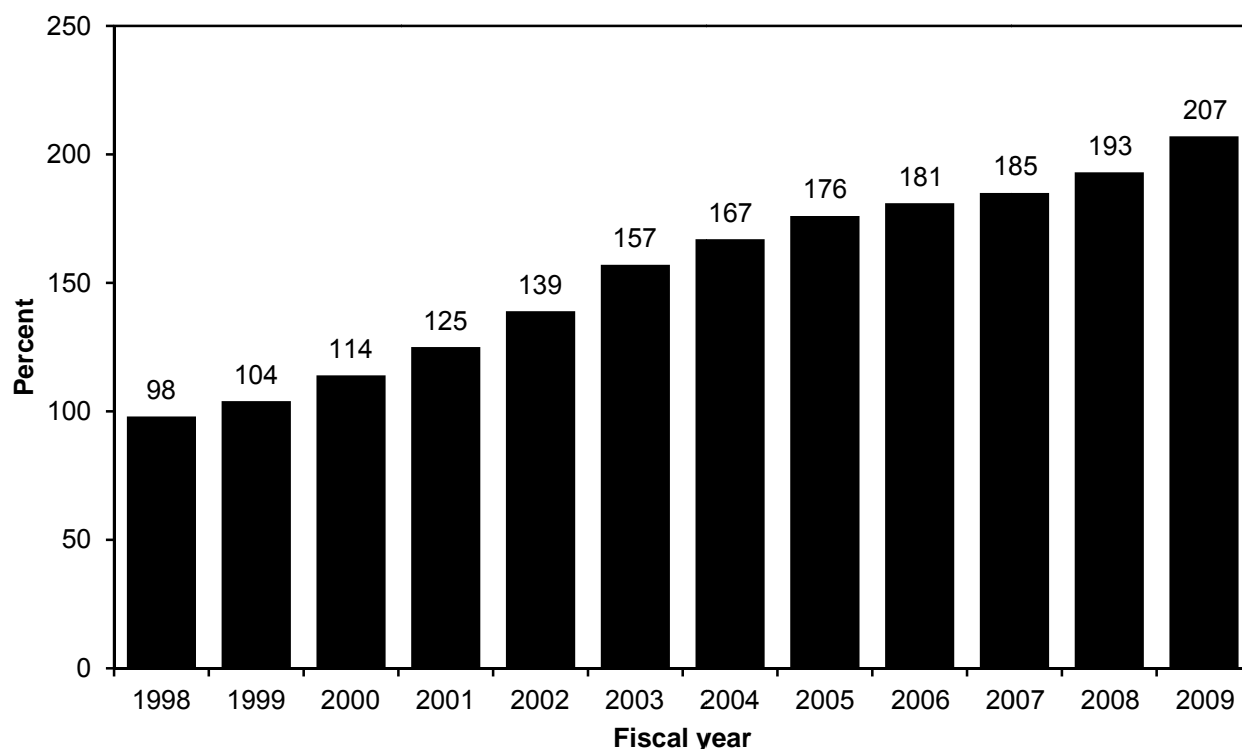


**Note:** Data are for community hospitals and cover all hospital services. Imputed values were used for missing data (about one-third of observations). Data for 2006–2009 exclude Medicare and Medicaid managed care patients from the private payment-to-cost ratio. The private payment-to-cost ratio includes self-pay patients. If we excluded self-pay patients, the payment-to-cost ratio for 2009 would be higher, at approximately 1.41.

**Source:** MedPAC analysis of Medicare Cost Report files from CMS and CMS's rules for the acute inpatient prospective payment system and American Hospital Association Annual Survey of Hospitals.

- The pattern of growth in Medicare costs per discharge makes it clear that hospitals have responded strongly to the incentives posed by the rise and fall of financial pressure from private payers over three distinct periods between 1987 and 2007.
- During the first period, 1987–1992, private payers' payments rose much faster than the cost of treating their patients (seen in the chart as a steep increase in the payment-to-cost ratio). This result suggests an almost complete lack of pressure from private payers. Medicare costs per discharge rose 8.3 percent per year during these years, more than 3 percentage points a year above the increase in Medicare's market basket index.
- As HMOs and other private insurers exerted more pressure during the second period, 1993–1999, the private payer payment-to-cost ratio dropped substantially. The rate of cost growth plummeted to an average of only 0.8 percent per year, which was more than 2 percentage points below the average increase in the market basket.
- As pressure from private payers waned after 1999, the private payer payment-to-cost ratio rose sharply, and hospital cost growth exceeded growth in the market basket by 2 percentage points a year. In 2005–2007, the growth in private payer profit margins slowed, and in 2007, cost growth more closely matches the market basket.
- In 2009, the private payer payment-to-cost ratio increased as cost growth was lower than payment rate increases. The slow cost growth in 2009 may reflect financial pressure stemming from 2008 investment portfolio losses and economic uncertainty. (See Chart 6-17.)

**Chart 6-23. Markup of charges over costs for Medicare services, 1998–2009**

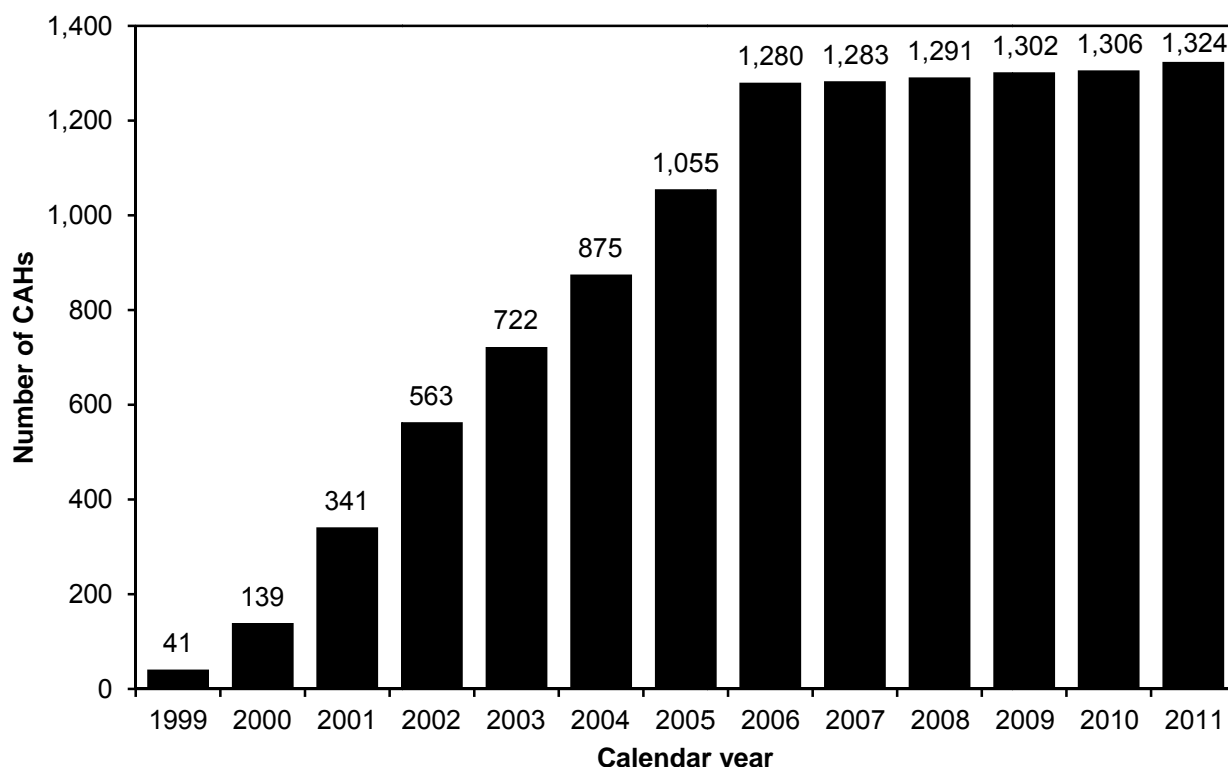


Note: Analysis includes all community hospitals.

Source: American Hospital Association Annual Survey of Hospitals.

- The markup of charges over costs rose from about 98 percent in 1998 to 207 percent in 2009. Charges now exceed costs by more than a factor of 3.
- Since few patients pay full charges, rapid growth in charges may have little impact on hospital financial performance. However, this growth may significantly affect uninsured patients, who may pay full charges. More rapid growth in charges (relative to growth in costs) may reflect hospitals' attempts to maximize revenue from private payers (who often structure their payments as a discount off charges). The unusually large increases in charges in 2002 and 2003 may have resulted from some hospitals manipulating Medicare outlier payments. Toward the end of fiscal year 2003, Medicare revised its outlier policy in an attempt to curb hospitals' opportunity to increase their outlier payments through excessive increases in charges.
- The markup of charges over costs is generally higher for urban hospitals (224 percent in 2009) than for rural hospitals (168 percent in 2009).

**Chart 6-24. Number of CAHs, 1999–2011**



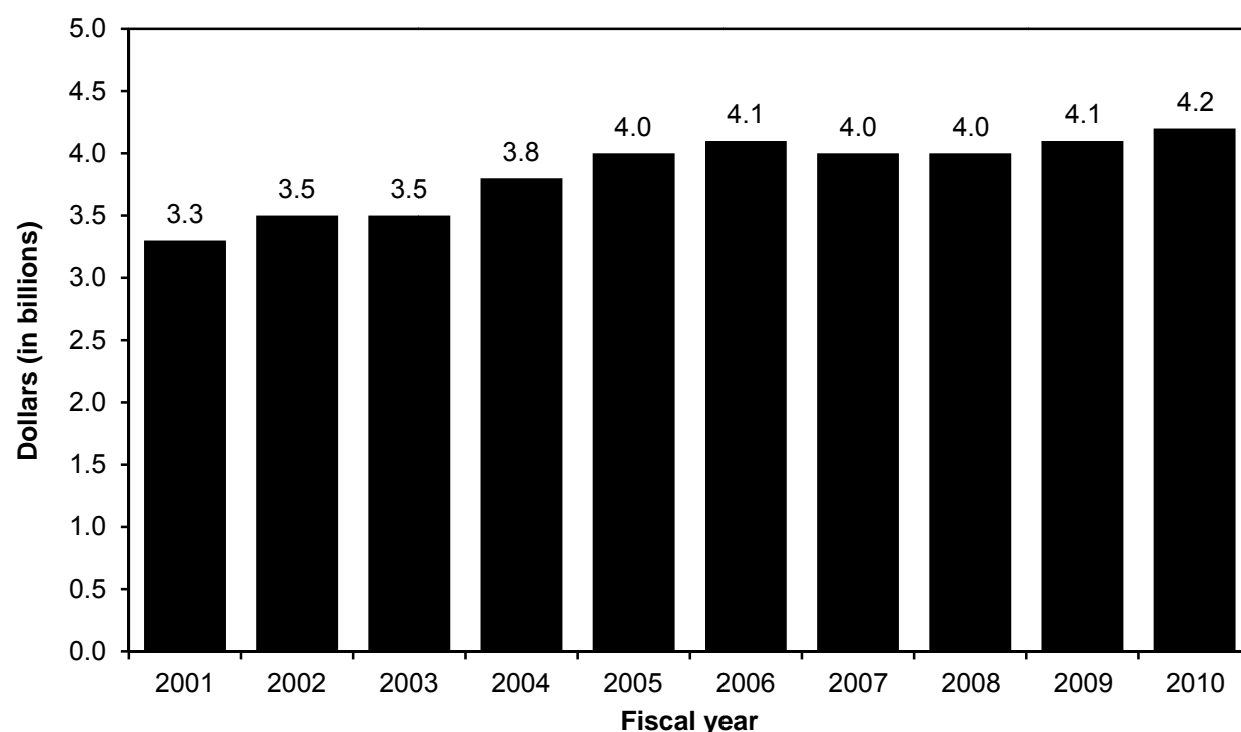
Note: CAH (critical access hospital).

Source: The Medicare Rural Hospital Flexibility Program and CMS.

- The number of critical access hospitals (CAHs) grew rapidly from 1999 to 2006 but has since leveled off at approximately 1,300 facilities.
- The increase in CAHs is in part due to a series of legislative changes that made conversion to CAH status easier and expanded the services that qualify for cost-based reimbursement. Currently, CAHs are paid their Medicare costs plus 1 percent for inpatient services, outpatient services (including laboratory and therapy services), and post-acute services in swing beds.
- Before 2006, a hospital could convert to CAH status if it was (1) 35 miles by primary road or 15 miles by secondary road from the nearest hospital, or (2) the state waived the distance requirement by declaring the hospital a “necessary provider.” Starting in 2006, states could no longer waive the distance requirement. While most existing CAHs fail the distance test, they are grandfathered into the program. Among small rural hospitals that have not converted, most would not meet the distance requirement. Therefore, we expect the number of CAHs to remain fairly constant.



**Chart 6-25. Medicare payments to inpatient psychiatric facilities, 2001–2010**



Source: CMS, Office of the Actuary.

- The inpatient psychiatric facility prospective payment system started January 1, 2005.
- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities grew an estimated 2.7 percent per year between 2001 and 2010.
- Inpatient psychiatric care furnished in scatter beds in acute care hospitals and paid under the acute care inpatient prospective payment system is not included in this chart.

**Chart 6-26. Number of inpatient psychiatric facility cases has fallen under the PPS, 2002–2009**

	TEFRA		PPS			Average annual change 2002–2004	Average annual change 2004–2009
	2002	2004	2006	2008	2009		
Cases	464,780	483,271	474,417	442,759	431,276	2.0%	–2.3%
Cases per 1,000 FFS beneficiaries	13.3	13.2	13.1	12.5	12.3	–0.2	–1.5
Spending per FFS beneficiary	\$90.6	\$96.8	\$104.7	\$109.5	\$111.3	3.4	2.8
Payment per case	\$6,822	\$7,328	\$7,989	\$8,742	\$9,080	3.6	4.4
Payment per day	\$570	\$627	\$677	\$728	\$763	4.9	4.0
Length of stay (in days)	13.0	12.7	13.0	13.1	13.1	–1.2	0.6

Note: PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), fee-for-service (FFS). Numbers of cases and patients reflect Medicare FFS utilization of services furnished in inpatient psychiatric facilities. Scatter bed cases and spending are excluded, as are cases and spending for beneficiaries enrolled in Medicare Advantage plans.

Source: MedPAC analysis of MedPAR data from CMS.

- Since a prospective payment system for inpatient psychiatric facilities (IPFs) was implemented in January 2005, the number of cases in IPFs has fallen, on average, about 2.3 percent per year. Controlling for the number of beneficiaries enrolled in fee-for-service Medicare, IPF cases fell 1.5 percent per year between 2004 and 2009.

# **Chart 6-27. Inpatient psychiatric facilities, 2003–2009**

Type of IPF	TEFRA		PPS					Annual change 2003–2004	Average annual change 2004–2009
	2003	2004	2005	2006	2007	2008	2009		
All	1,703	1,657	1,623	1,590	1,584	1,564	1,536	–2.7%	–1.5%
Urban	1,298	1,277	1,283	1,267	1,262	1,251	1,210	–1.6	–1.1
Rural	405	378	340	323	322	313	326	–6.7	–2.9
Freestanding	353	352	366	396	412	420	426	–0.3	3.9
Hospital-based units	1,350	1,305	1,257	1,194	1,172	1,144	1,110	–3.3	–3.2
Nonprofit	974	949	910	878	849	831	802	–2.6	–3.3
For profit	349	327	344	343	359	352	368	–6.3	2.4
Government	380	381	369	369	376	381	366	0.3	–0.8

Note: IPF (inpatient psychiatric facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Numbers are facilities that submitted valid Medicare cost reports in the given fiscal year.

Source: MedPAC analysis of Medicare cost report files from CMS.

- Between 2003 and 2004, the number of freestanding inpatient psychiatric facilities (IPFs) remained fairly steady. Beginning in 2005, when the IPF prospective payment system (PPS) began to be implemented, the number of freestanding IPFs grew an average of 3.9 percent per year. By comparison, the number of distinct-part psychiatric units in acute care hospitals fell by 3.3 percent between 2003 and 2004, a decline that continued after the PPS was implemented. Much of the decline in psychiatric units occurred among nonprofit and rural facilities.
- The drop in the number of psychiatric units likely has several causes. Psychiatric units may not be as profitable as they once were, particularly when compared with other acute care hospital services. Other factors, such as the availability of psychiatrists to provide on-call services in hospital emergency departments, may also affect acute care hospitals' decisions to close their psychiatric units.

**Chart 6-28. One diagnosis accounted for almost three-quarters of IPF cases in 2009**

MS-DRG	Diagnoses	Percentage
885	Psychosis	73.1%
057	Degenerative nervous system disorders without MCC	7.5
884	Organic disturbances & mental retardation	5.8
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.2
881	Depressive neurosis	3.3
882	Neurosis except depressive	1.1
895	Alcohol/drug abuse or dependency with rehabilitation, without MCC	0.9
056	Degenerative nervous system disorders with MCC	0.8
880	Acute adjustment reaction & psychosocial dysfunction	0.7
886	Behavioral and developmental disorders	0.5
883	Disorders of personality & impulse control	0.5
894	Alcohol/drug use—left AMA	0.2
896	Alcohol/drug abuse or dependency without rehabilitation, with MCC	0.2
876	OR procedure with principal diagnosis of mental illness	0.1
887	Other mental disorders	0.1
081	Nontraumatic stupor & coma without MCC	0.1
080	Nontraumatic stupor & coma with MCC	0.0
	Nonpsychiatric MS-DRGs	0.9
	Total	100.0

Note: IPF (inpatient psychiatric facility), MS-DRG (Medicare severity–diagnosis related group), MCC (major comorbidity or complication), AMA (against medical advice), OR (operating room).

Source: MedPAC analysis of MedPAR data from CMS.

- Medicare patients in inpatient psychiatric facilities (IPFs) are generally assigned to 1 of 17 psychiatric Medicare severity–diagnosis related groups. In 2009, the most frequently occurring IPF diagnosis—accounting for 73 percent of IPF discharges—was psychoses. The next most common discharge, accounting for almost 8 percent of IPF cases, was degenerative nervous system disorders.

## Chart 6-29. IPF discharges by beneficiary characteristics, 2009

Characteristic	Share of total IPF discharges
Current eligibility status*	
Aged	34.9%
Disabled	65.0
ESRD only	0.1
Age (years)	
<45	28.3
45–64	36.4
65–79	21.1
80+	14.6
Race	
White	77.1
African American	17.3
Hispanic	2.7
Other	2.9

Note: IPF (inpatient psychiatric facility), ESRD (end-stage renal disease).

\*Some aged beneficiaries are also disabled.

Source: MedPAC analysis of MedPAR data from CMS.

- Most Medicare beneficiaries treated in inpatient psychiatric facilities (IPFs) qualify for Medicare because of a disability. As a result, IPF patients tend to be younger and poorer than the typical fee-for-service beneficiary.
- Diagnosis patterns differed by age and race. Among the top Medicare severity–diagnosis related groups in 2009, degenerative nervous system disorders, such as dementia, were much more common in older patients, while psychoses were more common in younger patients.
- A majority of beneficiaries admitted to IPFs are dually eligible for Medicare and Medicaid. In 2009, 59 percent of Medicare beneficiaries with at least one IPF discharge were dually eligible for at least one month of the year.

## Web links. Acute inpatient services

### Short-term hospitals

- Chapter 3 of the MedPAC March 2011 Report to the Congress provides additional detailed information on hospital margins.

[http://medpac.gov/chapters/Mar11\\_Ch03.pdf](http://medpac.gov/chapters/Mar11_Ch03.pdf)

- MedPAC provides basic information about the acute inpatient prospective payment system in its Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_hospital.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_hospital.pdf)

- CMS provides information on the hospital market basket.

<http://www.cms.gov/MedicareProgramRatesStats/downloads/info.pdf>

- CMS published the proposed acute inpatient prospective payment system rule in the May 4, 2010, *Federal Register*.

<http://www.cms.gov/AcuteInpatientPPS/IPPS2011/list.asp#TopOfPage>

### Inpatient psychiatric facilities

- Chapter 6 of the MedPAC June 2010 Report to the Congress provides information on inpatient psychiatric facilities.

[http://medpac.gov/chapters/Jun10\\_Ch06.pdf](http://medpac.gov/chapters/Jun10_Ch06.pdf)

- MedPAC provides basic information about the inpatient psychiatric facility prospective payment system in its Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_psych.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_psych.pdf)

- CMS provides information on the inpatient psychiatric facility prospective payment system.

<http://www.cms.gov/InpatientPsychFacilPPS/>

- CMS describes updates to the inpatient psychiatric facility prospective payment system for the rate year beginning July 1, 2011, in the January 27, 2011, *Federal Register*.

<http://edocket.access.gpo.gov/2011/pdf/2011-1507.pdf>

SECTION

7

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## **Ambulatory care**

**Physicians**

**Hospital outpatient services**

**Ambulatory surgical centers**

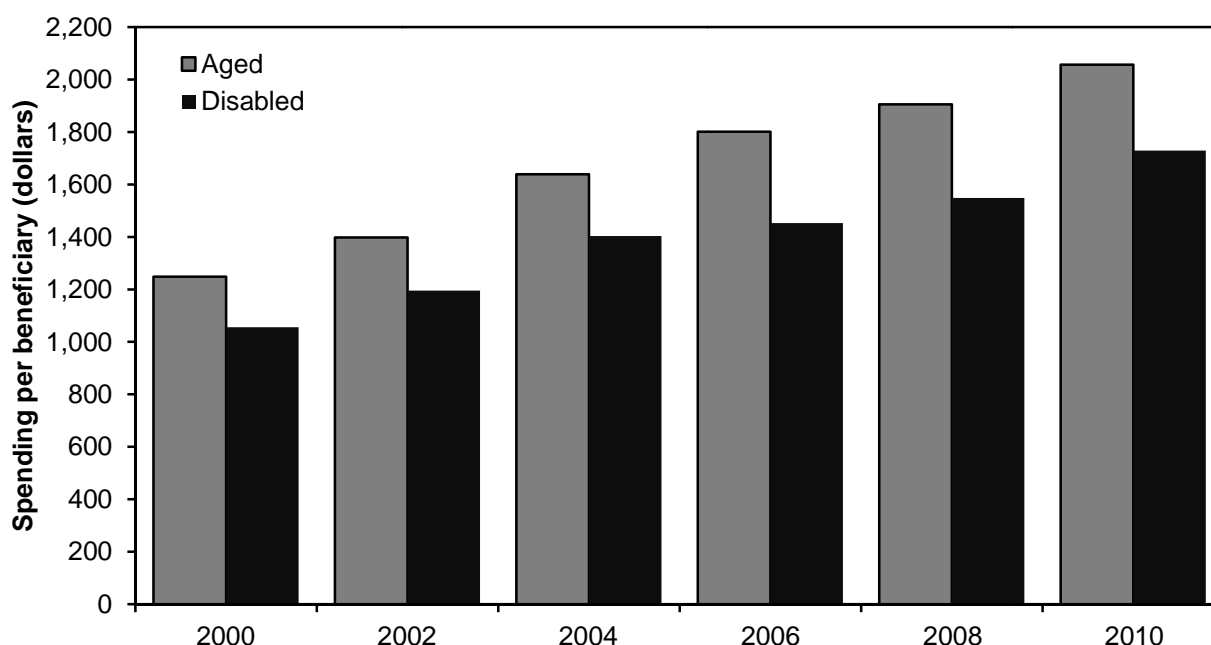
**Imaging services**

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**Chart 7-1. Medicare spending per FFS beneficiary on physician fee-schedule services, 2000–2010**

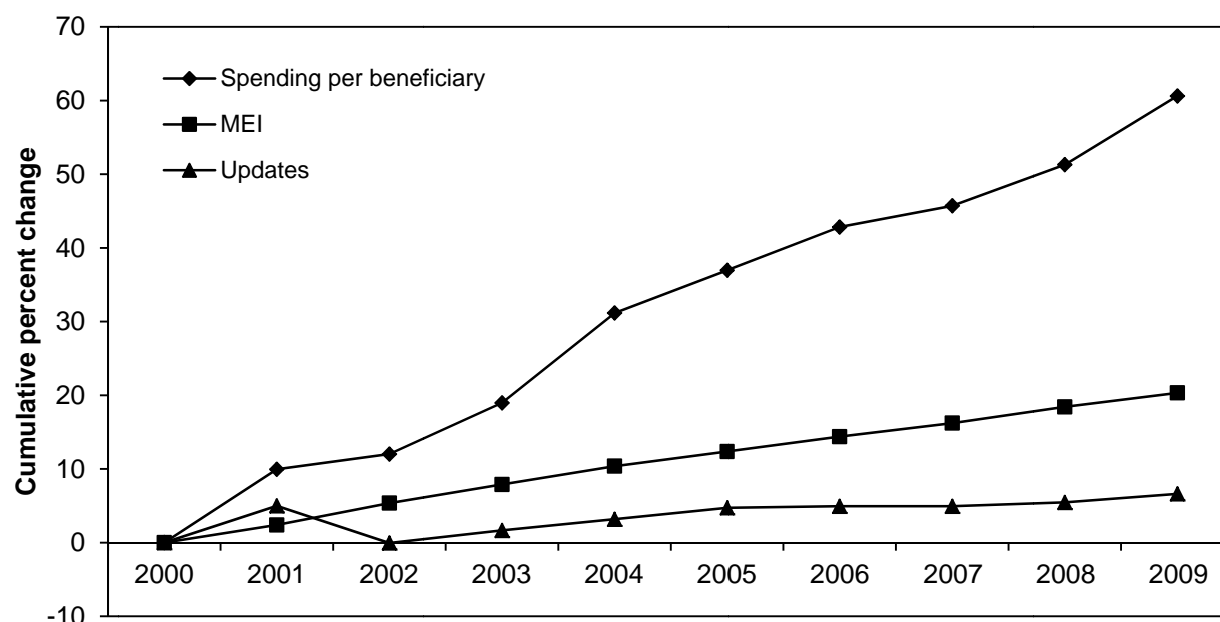


Note: FFS (fee-for-service). Dollars are Medicare spending only and do not include beneficiary coinsurance. The category “disabled” excludes beneficiaries who qualify for Medicare because they have end-stage renal disease. All beneficiaries age 65 or over are included in the aged category.

Source: 2011 annual reports of the Boards of Trustees of the Medicare trust funds.

- Physicians and other health professionals perform a broad range of services listed on the Medicare physician fee schedule, including office visits, surgical procedures, and a variety of diagnostic and therapeutic services furnished in all health care settings. In addition to physicians, these services may be provided by other health professionals (e.g., nurse practitioners, chiropractors, and physical therapists).
- Fee-for-service (FFS) spending per beneficiary for physician fee-schedule services has increased annually. During the decade between 2000 and 2010, Medicare spending per FFS beneficiary on these services grew 64 percent.
- Growth in spending on physician fee-schedule services is one of several contributions to Part B premium increases over this time period.
- Per capita spending for disabled beneficiaries (under age 65) is lower than per capita spending for aged beneficiaries. In 2010, for example, per capita spending for disabled beneficiaries was \$1,729 compared with \$2,056 for aged beneficiaries.
- Spending data for 2011 are not available.

**Chart 7-2. Volume growth has raised physician spending more than input prices and payment updates, 2000–2009**

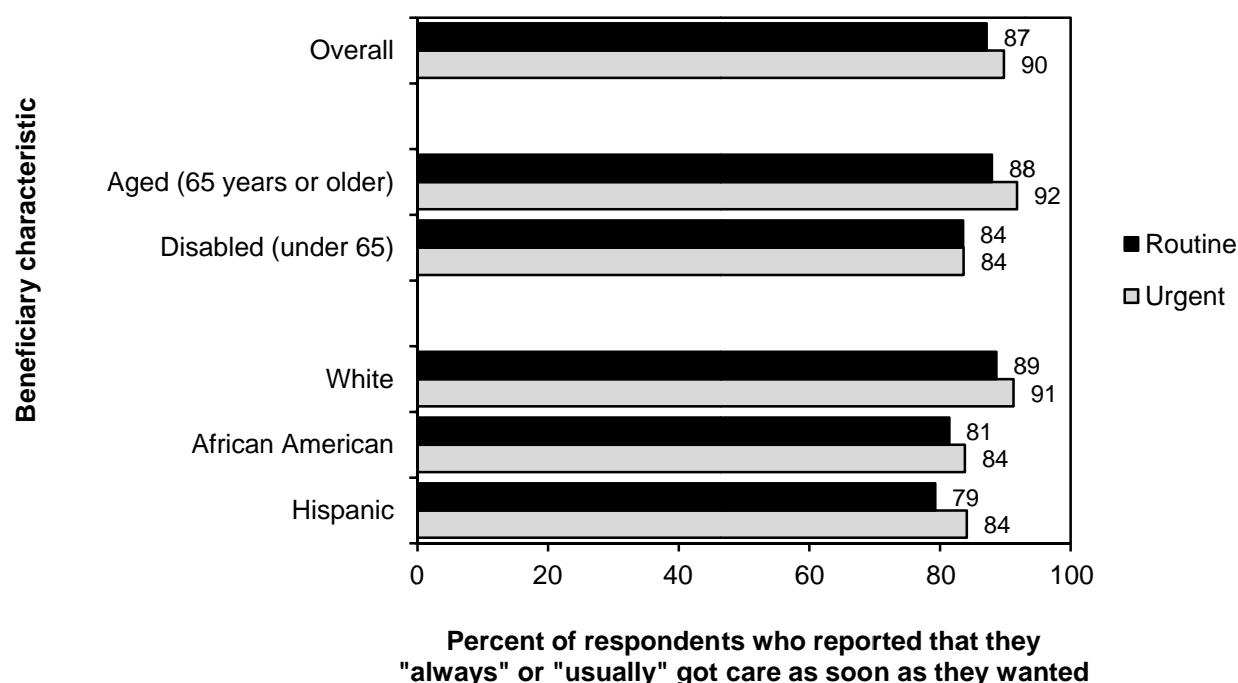


Note: MEI (Medicare Economic Index).

Source: 2010 annual report of the Boards of Trustees of the Medicare trust funds, IHS Global Insight data through second quarter of 2010, and data from the Office of the Actuary.

- During the 10-year period ending in 2009, Medicare spending for physician services—per beneficiary—increased by 61 percent.
- Medicare spending on physician services grew much more rapidly over this period than both the payment rate updates and the Medicare Economic Index (MEI). Physician fee schedule payment updates totaled 7 percent, and the MEI increased 20 percent.
- Growth in the volume of services provided contributed significantly more to the rapid increase in Medicare spending than payment rate updates. Both factors—updates and volume growth—combine to increase physician revenues.

**Chart 7-3. Most beneficiaries report that they can always or usually get timely care, 2010**



Note: In the survey, routine care refers to appointments in doctors' offices or clinics that are not for care needed "right away." Urgent care refers to care needed "right away" for an illness, injury, or condition. Nonapplicable respondents (e.g., those who did not seek routine or urgent care in the last six months) were excluded.

Source: MedPAC analysis of CAHPS® (Consumer Assessment of Healthcare Providers and Systems®) for fee-for-service Medicare, 2010.

- Overall, 87 percent of Medicare beneficiaries who reported making an appointment for routine care at a doctor's office or clinic said that they always or usually got care as soon as they wanted. For beneficiaries who reported needing urgent care in a clinic, emergency room, or doctor's office, 90 percent reported that they always or usually got care as soon as they wanted.
- Compared with beneficiaries age 65 or older, those under age 65 and eligible for Medicare on the basis of disability were less likely to report that they always or usually got routine or urgent care as soon as they wanted.
- Smaller percentages of African American and Hispanic beneficiaries reported that they always or usually got care as soon as they wanted, compared with White beneficiaries.

**Chart 7-4. Medicare beneficiaries report better ability to get timely appointments with physicians, compared with privately insured individuals, 2007–2010**

Survey question	Medicare (age 65 or older)				Private insurance (age 50–64)			
	2007	2008	2009	2010	2007	2008	2009	2010
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”								
<b>For routine care</b>								
Never	75%*	76%*	77%*	75%*	67%*	69%*	71%*	72%*
Sometimes	18*	17*	17*	17*	24*	24*	22*	21*
Usually	3	3*	2*	3*	4	5*	3*	4*
Always	3	2	2	2	3	2	3	3
<b>For illness or injury</b>								
Never	82*	84*	85*	83%*	76*	79*	79*	80%*
Sometimes	13*	12*	11*	13*	17*	16*	17*	15*
Usually	3	1	2	2	3	2	2	2
Always	2	1*	1	1*	3	2*	2	2*

Note: Numbers may not sum to 100 percent due to rounding. Missing responses (“Don’t Know” or “Refused”) are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in years 2009 and 2010. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted in 2007, 2008, 2009, and 2010.

- Most Medicare beneficiaries have one or more doctor appointments in a given year. Therefore, one access indicator we examine is their ability to schedule timely appointments.
- Medicare beneficiaries report better access to physicians for appointments compared with privately insured individuals age 50 to 64. For example, in 2010, 75 percent of Medicare beneficiaries and 72 percent of privately insured individuals reported “never” having to wait longer than they wanted to get an appointment for routine care.
- Medicare beneficiaries also report more timely appointments for injury and illness compared with their privately insured counterparts.
- As expected, appointment scheduling for illness and injury is better than for routine care appointments for both Medicare beneficiaries and privately insured individuals.

**Chart 7-5. Medicare and privately insured patients who are looking for a new physician report more difficulty finding one in primary care, 2007–2010**

Survey question	Medicare (age 65 or older)				Private insurance (age 50–64)			
	2007	2008	2009	2010	2007	2008	2009	2010
<b>Looking for a new physician:</b> “In the past 12 months, have you tried to get a new primary care doctor?”								
Yes	9%	6%	6%	7%	10%	7%	8%	7%
No	91	93	93	93	90	93	92	93
<b>Getting a new physician:</b> Among those who tried to get an appointment with a new physician, “How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it...”								
<b>Primary care physician</b>								
No problem	70*	71	78	79*	82*	72	71	69*
Small problem	12	10	10	8	7	13	8	12
Big problem	17	18	12*	12	10	13	21*	19
<b>Specialist</b>								
No problem	85	88	88	87*	79	83	84	82*
Small problem	6	7	7	6*	11	9	9	11*
Big problem	9	4	5	5	10	7	7	6

Note: Numbers may not sum to 100 percent due to rounding. Missing responses (“Don’t Know” or “Refused”) are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in years 2009 and 2010. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted in 2007, 2008, 2009, and 2010.

- In 2010, only 7 percent of Medicare beneficiaries and 7 percent of privately insured individuals reported looking for a new primary care physician. This finding suggests that most people are either satisfied with their current physician or did not have a need to look for one.
- Of the 7 percent of Medicare beneficiaries who were looking for a new primary care physician in 2010, 20 percent reported problems finding one—12 percent reporting their problem as “big” plus 8 percent reporting their problem as “small.” Although this number amounts to less than 2 percent of the total Medicare population reporting problems, the Commission is concerned about the continuing trend of greater access problems for primary care.

Of the 7 percent of privately insured individuals who were looking for a new primary care physician in 2010, 31 percent reported problems finding one—19 percent reporting their problem as “big” plus 12 percent reporting their problem as “small.” The difference in the percentage experiencing a “big problem” finding a primary care physician between the Medicare and privately insured groups was statistically significant in 2009.

- For 2010, Medicare beneficiaries and privately insured individuals were more likely to report problems accessing primary care physicians compared with specialists.

**Chart 7-6. Access to physician care is better for Medicare beneficiaries compared with privately insured individuals, but minorities in both groups report problems more frequently, 2010**

Survey question	Medicare (age 65 or older)			Private insurance (age 50–64)		
	All	White	Minority	All	White	Minority
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”						
<b>For routine care</b>						
Never	75%*	76%*	74%*	72%*	73%*†	66%*†
Sometimes	17*	17*	17*	21*	20*	23*
Usually	3*	3	3*	4*	4	6*
Always	2	2	3	3	2	4
<b>For illness or injury</b>						
Never	83%*	84%*†	80%*†	80%*	81%*†	74%*†
Sometimes	13*	12	14*	15*	14†	20*†
Usually	2	2	2	2	2	2
Always	1*	1*†	2†	2*	2*	3

Note: Numbers may not sum to 100 percent due to rounding. Missing responses (“Don’t Know” or “Refused”) are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in years 2009 and 2010. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

† Indicates a statistically significant difference by race within the same insurance coverage category in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted in 2010.

- In 2010, Medicare beneficiaries reported better access to physicians for appointments compared with privately insured individuals age 50 to 64.
- Access varied by race, with minorities more likely than Whites to report access problems in both insurance categories. For example, in 2010, 84 percent of White Medicare beneficiaries reported “never” having to wait longer than they wanted to get an appointment for an illness or injury compared with 80 percent of minority beneficiaries.
- Although minorities experienced more access problems, minorities with Medicare were less likely to experience problems compared with minorities with private insurance.

**Chart 7-7. Differences in access to new physicians are most apparent among minority Medicare and privately insured patients who are looking for a new specialist, 2010**

Survey question	Medicare (age 65 or older)			Private insurance (age 50–64)		
	All	White	Minority	All	White	Minority
<b>Looking for a new physician:</b> “In the past 12 months, have you tried to get a new primary care doctor?”						
Yes	7%	7%	7%	7%	7%	6%
No	93	93	92	93	93	94
<b>Getting a new physician:</b> Among those who tried to get an appointment with a new physician, “How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it...”						
<b>Primary care physician</b>						
No problem	79*	80*	76	69*	69*	67
Small problem	8	7	9	12	11	15
Big problem	12	12	14	19	19	18
<b>Specialist</b>						
No problem	87*	89*†	78†	82*	83*†	73†
Small problem	6*	5*†	11†	11*	11*	14
Big problem	5	5	9	6	5†	13†

Note: Numbers may not sum to 100 percent due to rounding. Missing responses (“Don’t Know” or “Refused”) are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in years 2009 and 2010. Sample sizes for individual questions varied.

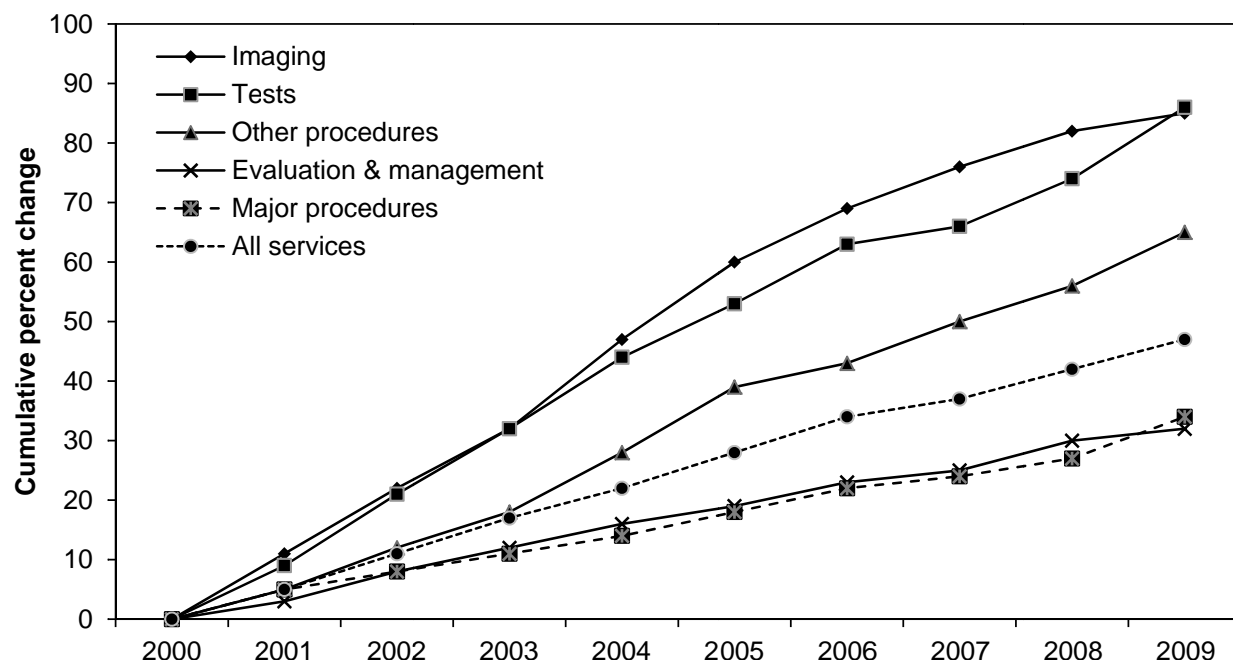
\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

† Indicates a statistically significant difference by race within the same insurance coverage category in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted in 2010.

- Among the small percentage of Medicare beneficiaries and privately insured individuals looking for a specialist, minorities were more likely than Whites to report problems finding one. For example, in 2010, 89 percent of White Medicare beneficiaries reported “no problem” finding a specialist, compared with 78 percent of minority beneficiaries.
- Although minorities experienced more access problems, minorities with Medicare were less likely to experience problems compared with minorities with private insurance.

**Chart 7-8. Continued growth in volume of physician services per beneficiary, 2000–2009**



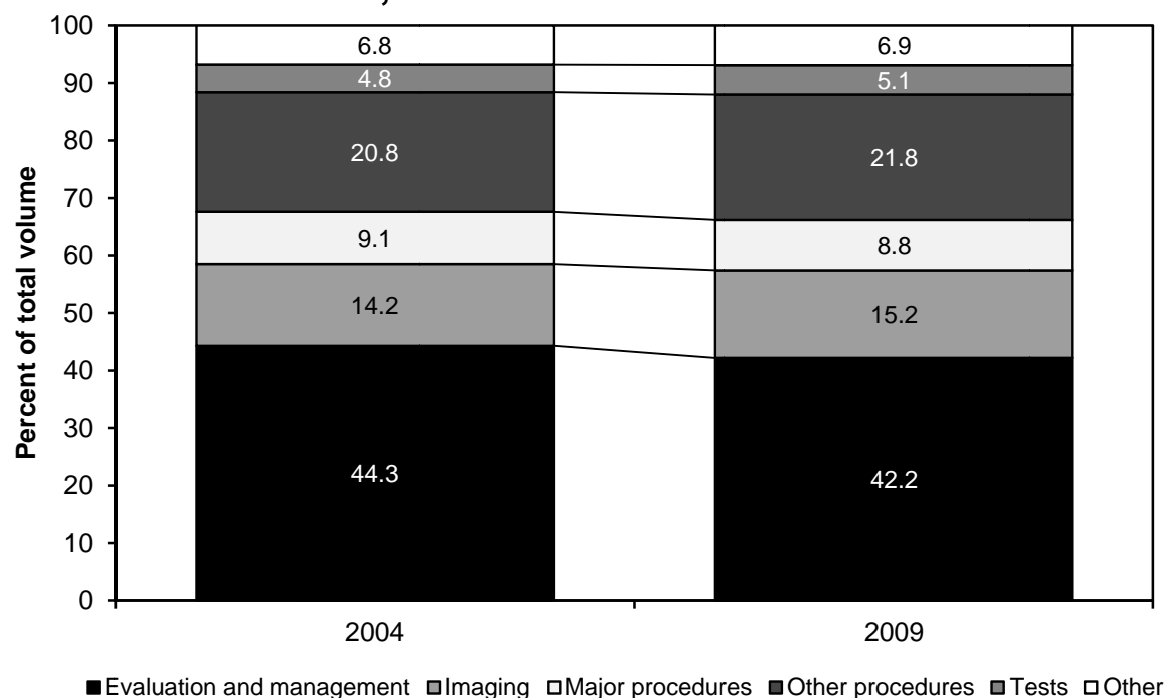
Note: Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for all years is measured on a common scale, with relative value units for 2009.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

- The volume of physician services per beneficiary has continued to grow from year to year, with some services growing much more than others.
- From 2000 to 2009, the volume of physician services grew by 47.0 percent. By specific types of services, imaging, tests, and “other procedures” (procedures other than major procedures) each grew at a rate of 65 percent or more. The comparable growth rates for major procedures and evaluation and management services were only 34 percent and 32 percent, respectively.
- Volume growth has slowed in recent years but remains positive. From 2008 to 2009, services in the tests category grew the most: They increased 7.4 percent. Other procedures was next, at 5.5 percent, followed by major procedures (5.3 percent), imaging (2.0 percent), and evaluation and management (1.7 percent).
- Volume growth increases Medicare spending, squeezing other priorities in the federal budget and requiring taxpayers and beneficiaries to contribute more to the Medicare program. Overall volume increases translate directly to growth in both Part B spending and premiums. They are also largely responsible for the negative updates required by the sustainable growth rate formula. Rapid volume growth may be a sign that some services in the physician fee schedule are mispriced.



**Chart 7-9. Shifts in the volume of physician services, by type of service, 2004–2009**

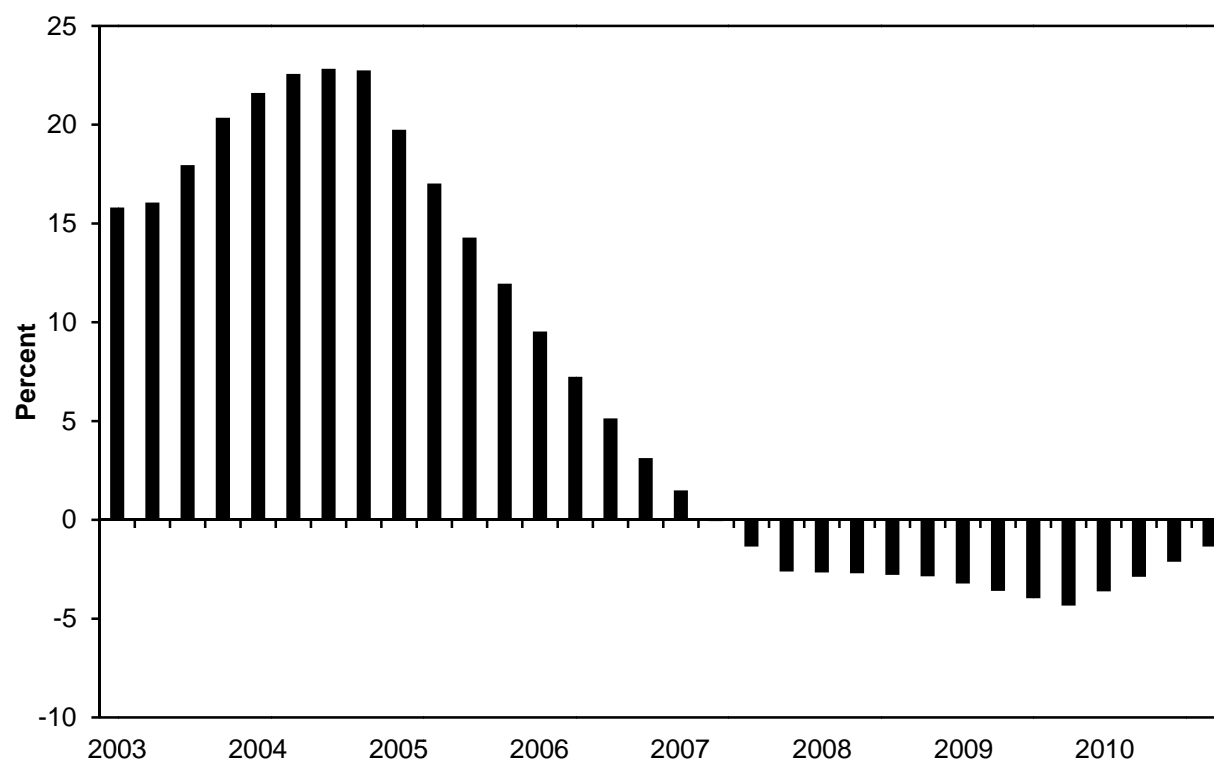


Note: Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for both years is measured on a common scale, with relative value units for 2009.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

- Among broad categories of services, evaluation and management (E&M) services—including office visits and visits to hospital inpatients—account for the largest share of volume. In 2009, E&M was 42.2 percent of the total, followed by other procedures (21.8 percent), imaging (15.2 percent), major procedures (8.8 percent), and tests (5.1 percent). Services in other categories—such as chiropractic—accounted for the remaining 6.9 percent.
- With higher growth rates for some services and lower growth rates for others, the distribution of volume across the service categories has shifted. For instance, as a proportion of total volume, E&M services fell between 2003 and 2008 from 44.3 percent to 42.2 percent. By contrast, imaging's share of total volume for those years rose from 14.2 percent to 15.2 percent.

**Chart 7-10. Changes in physicians' professional liability insurance premiums, 2003–2010**

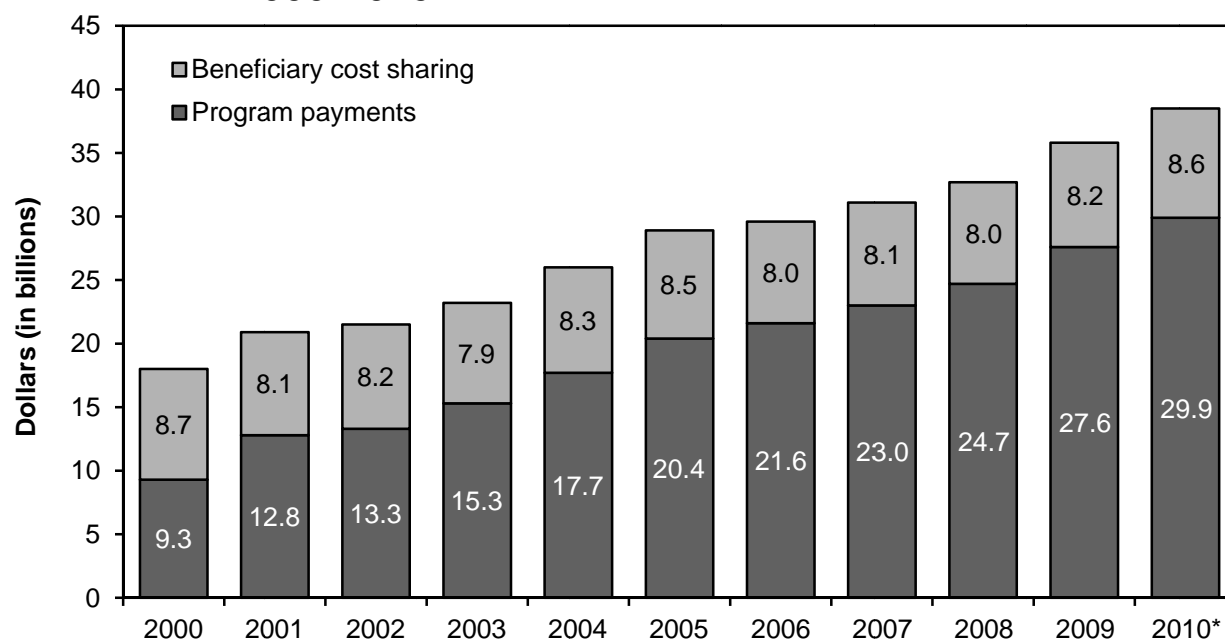


Note: Bars represent a four-quarter moving average percent change.

Source: CMS, Office of the Actuary. Data are from CMS's Professional Liability Physician Premium Survey.

- Professional liability insurance (PLI) accounts for 4.3 percent of total payments under the physician fee schedule. PLI premiums generally follow a cyclical pattern, alternating between periods of low premiums—characterized by high investment returns for insurers and vigorous competition—and high premiums—characterized by declining investment returns and market exit.
- After rapid increases in PLI premiums between 2002 and 2004, premium growth slowed in 2005 and 2006, becoming negative in 2007.

**Chart 7-11. Spending on all hospital outpatient services, 2000–2010**



Note: Spending amounts are for services covered by the Medicare outpatient prospective payment system and those paid on separate fee schedules (e.g., ambulance services and durable medical equipment) or those paid on a cost basis (e.g., organ acquisition and flu vaccines). They do not include payments for clinical laboratory services.  
\*Estimate.

Source: CMS, Office of the Actuary.

- Overall spending by Medicare and beneficiaries on hospital outpatient services (excluding clinical laboratory services) from calendar year 2000 to 2010 increased by 11.5 percent, reaching \$38.6 billion. The Office of the Actuary projects continued growth in total spending, averaging 8.2 percent per year from 2007 to 2012.
- A prospective payment system (PPS) for hospital outpatient services was implemented in August 2000. Services paid under the outpatient PPS represent most of the hospital outpatient spending illustrated in this chart, about 92 percent.
- In 2001, the first full year of the outpatient PPS, spending under the PPS was \$19.2 billion, including \$11.4 billion by the program and \$7.7 billion in beneficiary cost sharing. Spending under the outpatient PPS represented 92 percent of the \$20.9 billion in spending on hospital outpatient services in 2001. By 2010, spending under the outpatient PPS is expected to rise to \$35.3 billion (\$27.4 billion program spending; \$7.9 billion beneficiary copayments), which is 92 percent of the \$38.6 billion in spending on outpatient services in 2010. The outpatient PPS accounted for about 6 percent of total Medicare spending by the program in 2010.
- Beneficiary cost sharing under the outpatient PPS is generally higher than for other sectors, about 23 percent in 2009. Chart 7-15 provides more detail on coinsurance.

**Chart 7-12. Most hospitals provide outpatient services**

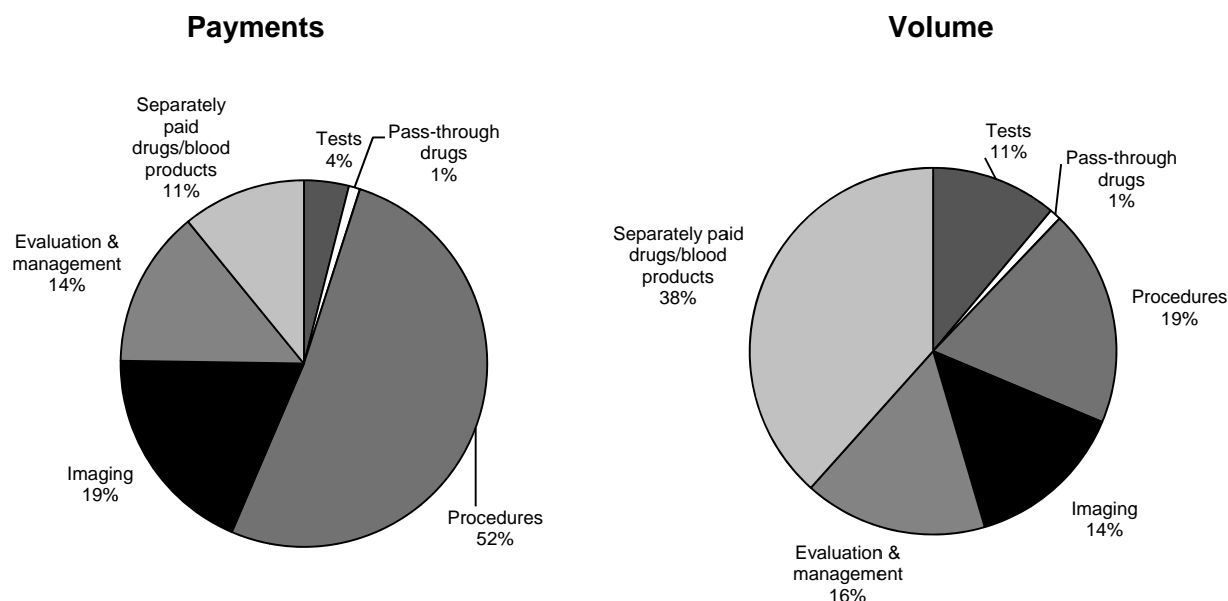
Year	Hospitals	Percent offering		
		Outpatient services	Outpatient surgery	Emergency services
2002	4,210	94%	84%	93%
2004	3,882	94	86	92
2006	3,651	94	86	91
2008	3,607	94	87	91
2009	3,557	94	89	89
2010	3,518	95	90	89

Note: Includes services provided or arranged by short-term hospitals. Excludes long-term, Christian Science, psychiatric, rehabilitation, children's, critical access, and alcohol/drug hospitals.

Source: Medicare Provider of Services files from CMS.

- The number of hospitals that furnish services under Medicare's outpatient prospective payment system (PPS) declined from 2001 through 2006, largely due to growth in the number of hospitals converting to critical access hospital status, which allows payment on a cost basis. Since 2006, the number of outpatient PPS hospitals has been more stable. In addition, the percent of hospitals providing outpatient services remained stable; the percent offering outpatient surgery has steadily increased; and the percent offering emergency services has decreased slightly.
- Almost all hospitals in 2010 provide outpatient services (95 percent). The vast majority provides outpatient surgery (90 percent) and emergency services (89 percent).

**Chart 7-13. Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2009**



Note: PPS (prospective payment system). Payments include both program spending and beneficiary cost sharing but do not include hold-harmless payments to rural hospitals. Services are grouped into evaluation and management, procedures, imaging, and tests, according to the Berenson-Eggers Type of Service classification developed by CMS. Pass-through drugs and separately paid drugs and blood products are classified by their payment status indicator. Percentages may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the five standard analytic file of outpatient claims for 2009.

- Hospitals provide many different types of services in their outpatient departments, including emergency and clinic visits, imaging and other diagnostic services, laboratory tests, and ambulatory surgery.
- The payments for services are distributed differently than volume. For example, procedures account for 52 percent of payments but only 19 percent of volume.
- Procedures (e.g., endoscopies, surgeries, skin and musculoskeletal procedures) account for the greatest share of payments for services (52 percent), followed by imaging services (19 percent) and evaluation and management services (14 percent).
- In 2009, separately paid drugs and blood products accounted for 11 percent of payments.

**Chart 7-14. Hospital outpatient services with the highest Medicare expenditures, 2009**

APC Title	Share of payments	Volume (thousands)	Payment rate
Total	47%		
All emergency visits	6	10,988	\$180
All clinic visits	4	18,679	72
Diagnostic cardiac catheterization	3	450	2,594
CT and CTA with contrast composite*	3	1,528	635
Cataract procedures with IOL insert	3	540	1,605
Level I plain film except teeth	2	15,581	45
Lower gastrointestinal endoscopy	2	1,146	594
Insertion of cardioverter-defibrillator	2	28	21,140
Level II extended assessment & management composite	2	808	675
Insertion/replacement/repair of cardioverter-defibrillator leads	2	19	28,251
IMRT treatment delivery	2	1,205	411
Computed tomography without contrast	1	2,463	194
Transcatheter placement of intracoronary drug-eluting stents	1	68	7,669
Coronary or noncoronary angioplasty and percutaneous valvuloplasty	1	180	3,195
Level II cardiac imaging	1	584	774
Level I upper gastrointestinal procedures	1	922	572
CT and CTA without contrast composite*	1	1,011	416
Transcatheter placement of intravascular shunts*	1	73	6,094
Level II echocardiogram without contrast except transesophageal	1	896	431
Level II laparoscopy	1	131	3,060
MRI and magnetic resonance angiography without contrast material	1	994	348
Level III nerve injections	1	841	474
Rituximab cancer treatment	1	6,060	525
MRI and magnetic resonance angiography without contrast followed by contrast	1	598	539
Level II radiation therapy	1	2,077	152
Average APC		344	143

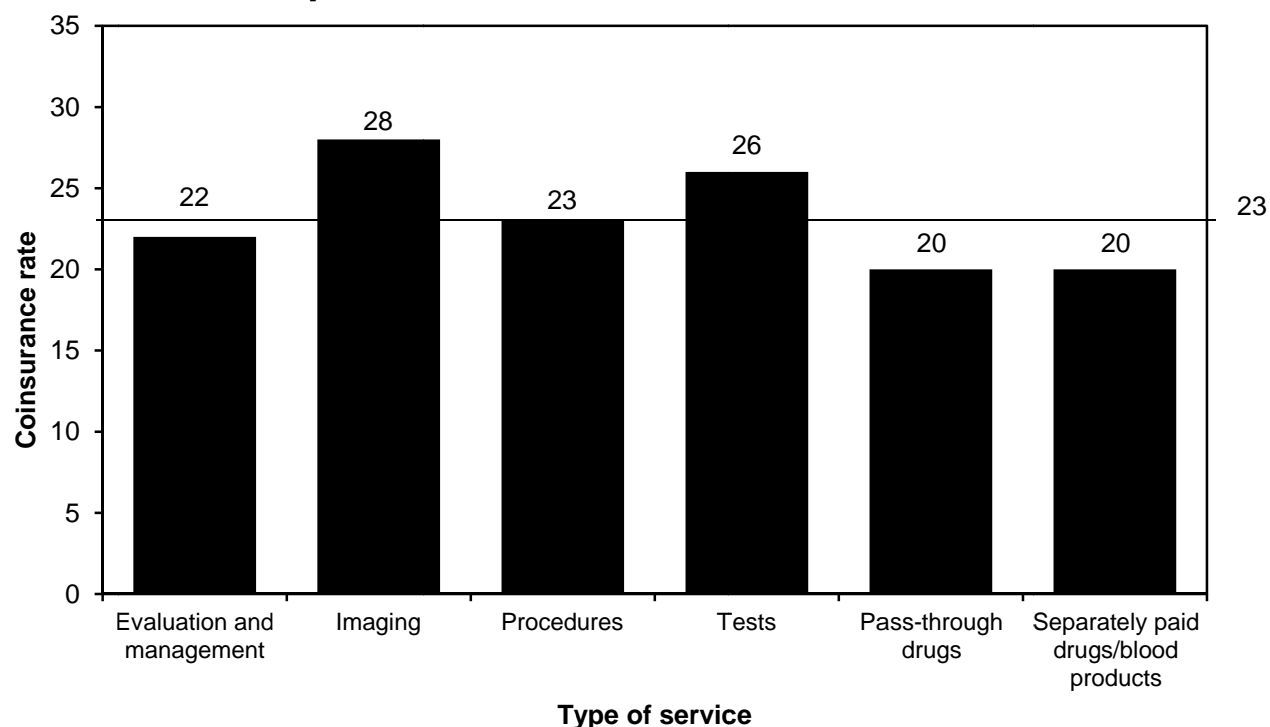
Note: APC (ambulatory payment classification), CT (computed tomography), CTA (computed tomography angiography), IOL (intraocular lens), IMRT (intensity-modulated radiation therapy), MRI (magnetic resonance imaging). The payment rates for "All emergency visits" and "All clinic visits" are weighted averages of payment rates from five APCs.

\*Did not appear on the list for 2008.

Source: MedPAC analysis of 5 percent analytic files of outpatient claims for calendar year 2009.

- Although the outpatient prospective payment system covers thousands of services, expenditures are concentrated in a handful of categories that have high volume, high payment rates, or both.

**Chart 7-15. Medicare coinsurance rates, by type of hospital outpatient service, 2009**



**Note:** Services were grouped into categories of evaluation and management, imaging, procedures, and tests according to the Berenson-Eggers Type of Service classification developed by CMS. Pass-through drugs and separately paid drugs and blood products are classified by their payment status indicators.

**Source:** MedPAC analysis of the 5 percent standard analytic files of outpatient claims for 2009.

- Historically, beneficiary coinsurance payments for hospital outpatient services were based on hospital charges, while Medicare payments were based on hospital costs. As hospital charges grew faster than costs, coinsurance represented a large share of total payments over time.
- In adopting the outpatient prospective payment system, the Congress froze the dollar amounts for coinsurance. Consequently, beneficiaries' share of total payments will decline over time.
- The coinsurance rate is different for each service. Some services, such as imaging, have relatively high rates of coinsurance—28 percent. Other services, such as evaluation and management services, have coinsurance rates of 22 percent.
- In 2009, the average coinsurance rate was about 23 percent.

**Chart 7-16. Effects of hold-harmless and SCH transfer payments on hospitals' outpatient revenue, 2007–2009**

Hospital group	2007		2008		2009	
	Number of hospitals	Share of payments from hold harmless and SCH transfer	Number of hospitals	Share of payments from hold harmless and SCH transfer	Number of hospitals	Share of payments from hold harmless and SCH transfer
All hospitals	3,292	0.2%	3,197	0.2%	3,143	0.3%
Urban	2,349	–0.4	2,276	–0.4	2,241	–0.4
Rural SCHs	409	5.8	397	5.9	389	7.1
Rural $\leq 100$ beds	381	2.9	373	3.1	363	3.1
Other rural	153	–0.4	151	–0.4	150	–0.4
Major teaching	272	–0.3	265	–0.3	260	–0.3
Other teaching	762	–0.1	745	–0.1	742	–0.2
Nonteaching	2,258	0.6	2,187	0.6	2,141	0.8

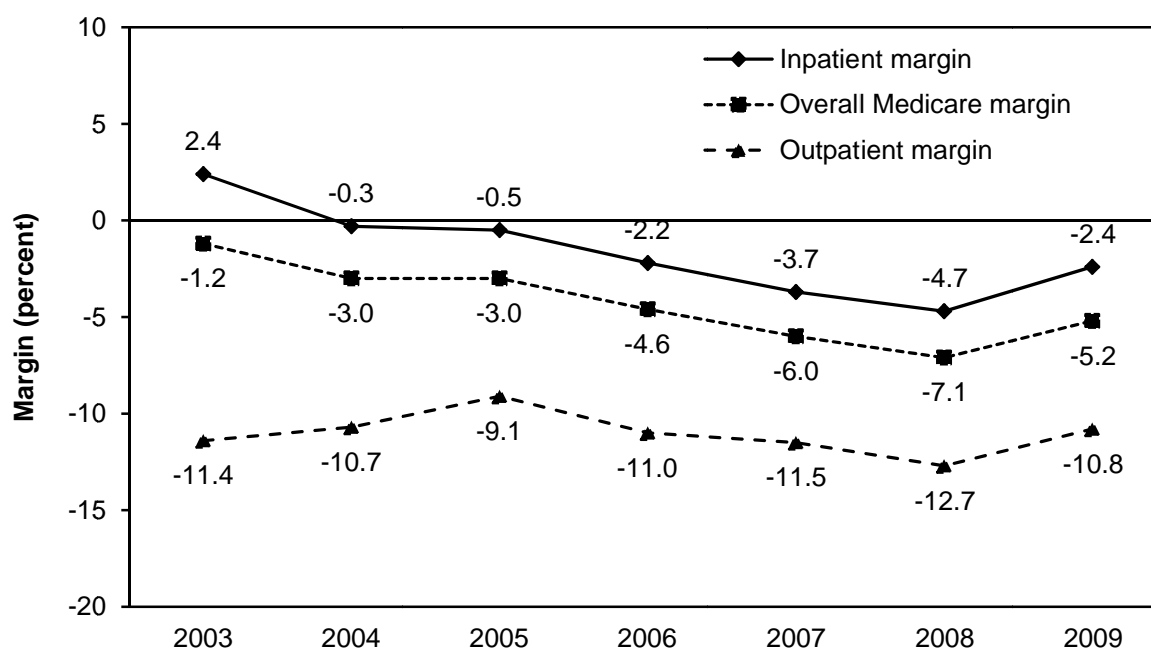
Note: SCH (sole community hospital).

Source: MedPAC analysis of Medicare Cost Report files from CMS.

- Medicare implemented the hospital outpatient prospective payment system (PPS) in 2000. Previously, Medicare paid for hospital outpatient services on the basis of hospital costs. Recognizing that some hospitals might receive lower payments under the outpatient PPS than under the earlier system, the Congress established transitional corridor payments. The corridors were designed to make up part of the difference between payments that hospitals would have received under the old payment system and those under the new outpatient PPS.
- Transitional corridor payments expired for most hospitals at the end of 2003. However, some rural hospitals continue to receive a special category of transitional corridor payments called “hold harmless.” Qualifying hospitals receive the greater of the payments they would have received from the previous system or the actual outpatient PPS payments.
- Hospitals that qualified for hold-harmless payments in 2004 and 2005 included sole community hospitals (SCHs) located in rural areas and other small rural hospitals (100 or fewer beds). After 2005, small rural hospitals continued to be eligible for hold-harmless payments but SCHs no longer qualified. However, in 2006, CMS implemented a policy (the “SCH transfer”) that increased outpatient payments to rural SCHs by 7.1 percent above the standard rates. This policy is budget neutral by reducing payments to all other hospitals by 0.4 percent. Finally, the Congress reestablished hold-harmless payments for SCHs that have 100 or fewer beds.
- Hold-harmless payments and the SCH transfer represented 0.2 percent of total outpatient PPS payments for all hospitals in 2007. However, the percentage of total outpatient payments from these policies was 5.8 percent for rural SCHs and 2.9 percent for small rural hospitals. Data from 2008 and 2009 indicate transfer and hold-harmless payments to rural SCHs were 5.9 percent of their outpatient revenue in 2008 and 7.1 percent in 2009. Small rural hospitals continued to benefit from hold-harmless payments in 2008 and 2009. These payments were 3.1 percent of their total outpatient payments in both years.



**Chart 7-17. Medicare hospital outpatient, inpatient, and overall Medicare margins, 2003–2009**

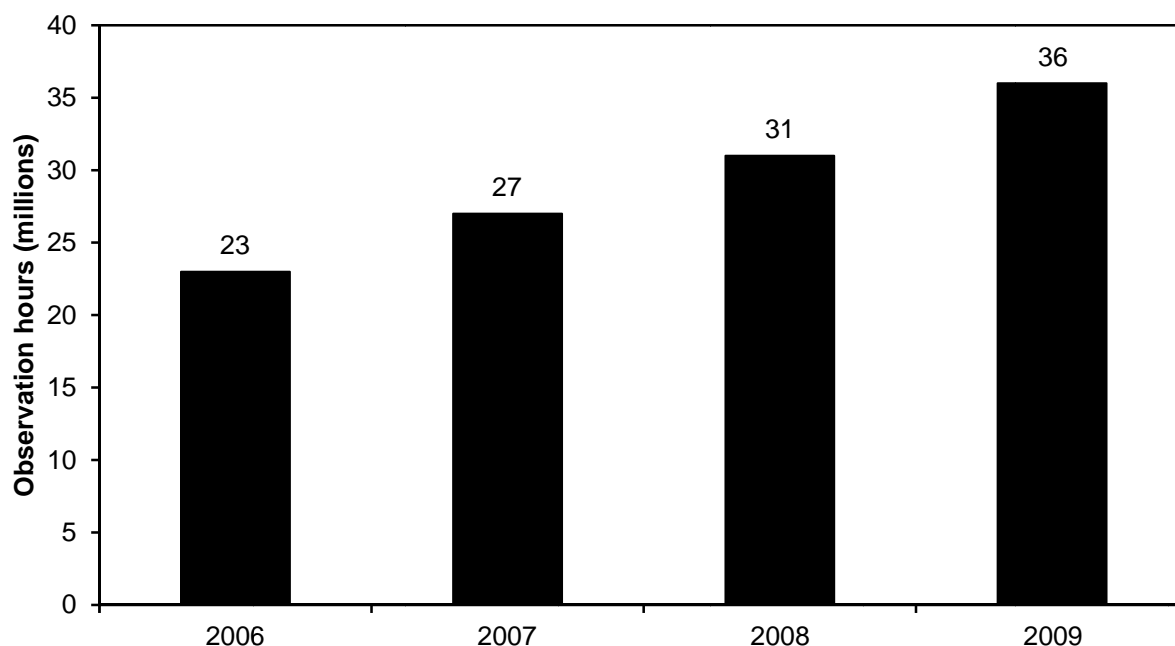


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of hospital inpatient, outpatient, psychiatric and rehabilitation (not paid under the prospective payment system) services, hospital-based skilled nursing facilities and home health services, and graduate medical education.

Source: MedPAC analysis of Medicare cost report data from CMS.

- Hospital outpatient margins vary. In 2009, while the aggregate margin was –10.8 percent, 25 percent of hospitals had margins of –22.3 percent or lower, and 25 percent had margins of –1.6 percent or higher. Outpatient margins also differed widely across hospital categories.
- Given hospital accounting practices, margins for hospital outpatient services must be considered in the context of Medicare payments and hospital costs for the full range of services provided to Medicare beneficiaries. Hospitals allocate overhead to all services, so we generally consider costs and payments overall.
- The improved margin in 2009 may be due to relatively low cost growth and expansion of hold-harmless payments to sole community hospitals (SCHs). After increasing from 2003 to 2004 and 2005, the outpatient margin declined in 2006, reflecting a change in Medicare's reimbursement for Part B drugs and an end to hold-harmless payments to SCHs (which were reestablished in 2009). The margin declined again in 2007 and 2008, which may be partly due to lower hold-harmless payments for hospitals that still qualify for them.

**Chart 7-18. Number of observation hours has increased, 2006–2009**



Source: MedPAC analysis of outpatient prospective payment system claims that CMS uses to set payment rates, 2006–2009.

- Hospitals use observation care to determine whether a patient should be hospitalized for inpatient care or sent home.
- Medicare began providing separate payments to hospitals for some observation services on April 1, 2002. Previously, the observation services were packaged into the payments for the emergency room or clinic visits that occur with observation care.
- The number of observation hours (both packaged and separately paid) has increased substantially from about 23 million in 2006 to 36 million in 2009. Before 2006, it was difficult to count the total number of observation hours because hospitals were not required to record on claims the number of hours for packaged observation hours.

**Chart 7-19. Number of Medicare-certified ASCs increased by 41 percent, 2003–2010**

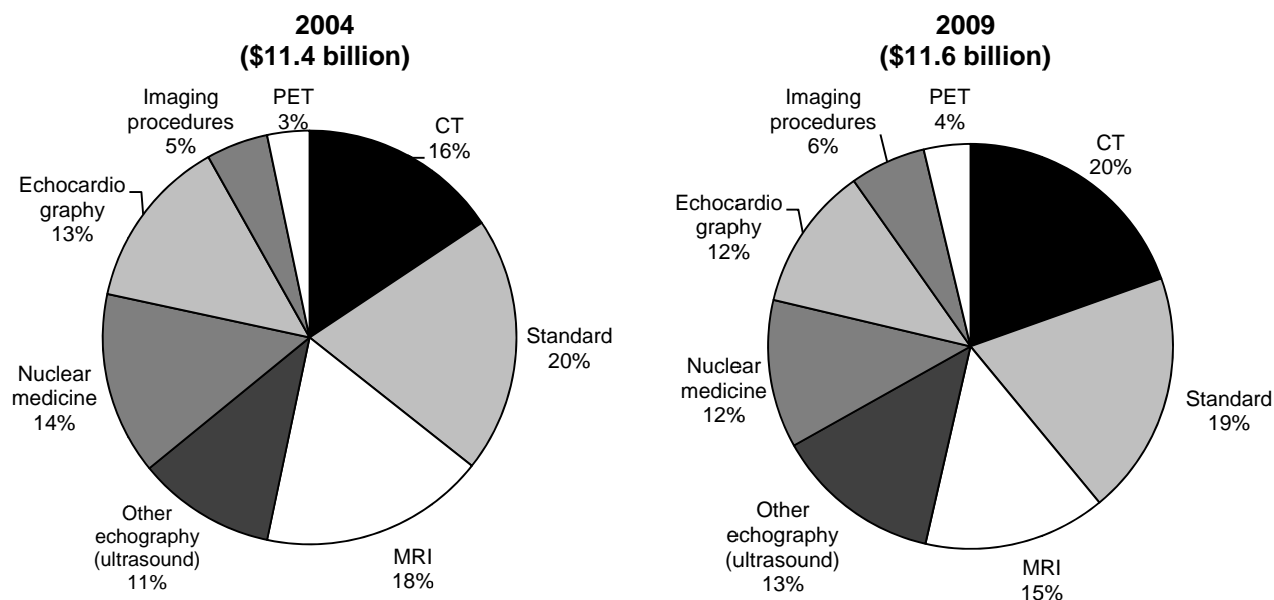
	2003	2004	2005	2006	2007	2008	2009	2010
Medicare payments (billions of dollars)	\$2.2	\$2.5	\$2.7	\$2.8	\$2.9	\$3.1	\$3.2	\$3.4
Number of centers	3,779	4,067	4,362	4,608	4,879	5,095	5,217	5,316
New centers	366	368	354	331	344	281	213	152
Exiting centers	66	80	59	85	73	65	91	53
Net percent growth in number of centers from previous year	7.6%	7.6%	7.3%	5.6%	5.9%	4.4%	2.4%	1.9%
Percent of all centers that are:								
For profit	95	96	96	96	96	96	96	97
Nonprofit	5	4	4	4	4	4	3	3
Urban	87	87	87	88	88	88	88	88
Rural	13	13	13	12	12	12	12	12

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services. Payments for 2010 are preliminary and subject to change. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of provider of services files from CMS, 2010. Payment data are from CMS, Office of the Actuary.

- Ambulatory surgical centers (ASCs) are entities that furnish only outpatient surgical services not requiring an overnight stay. To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage, which specify minimum facility standards.
- In 2008, Medicare began using a new payment system for ASC services that is based on the hospital outpatient prospective payment system. ASC rates are less than hospital outpatient rates. In contrast to the old ASC system, which had only nine procedure groups, the new system has several hundred procedure groups.
- Total Medicare payments for ASC services increased by 6.5 percent per year, on average, from 2003 through 2010. Payments per fee-for-service beneficiary grew by 6.6 percent per year during this period. Between 2009 and 2010, total payments rose by 5.6 percent and payments per beneficiary grew by 4.2 percent.
- The number of Medicare-certified ASCs grew at an average annual rate of 5.0 percent from 2003 through 2010. Each year from 2003 through 2010, an average of 301 new Medicare-certified facilities entered the market, while an average of 72 closed or merged with other facilities.

**Chart 7-20. Medicare spending for imaging services under the physician fee schedule, by type of service, 2004 and 2009**

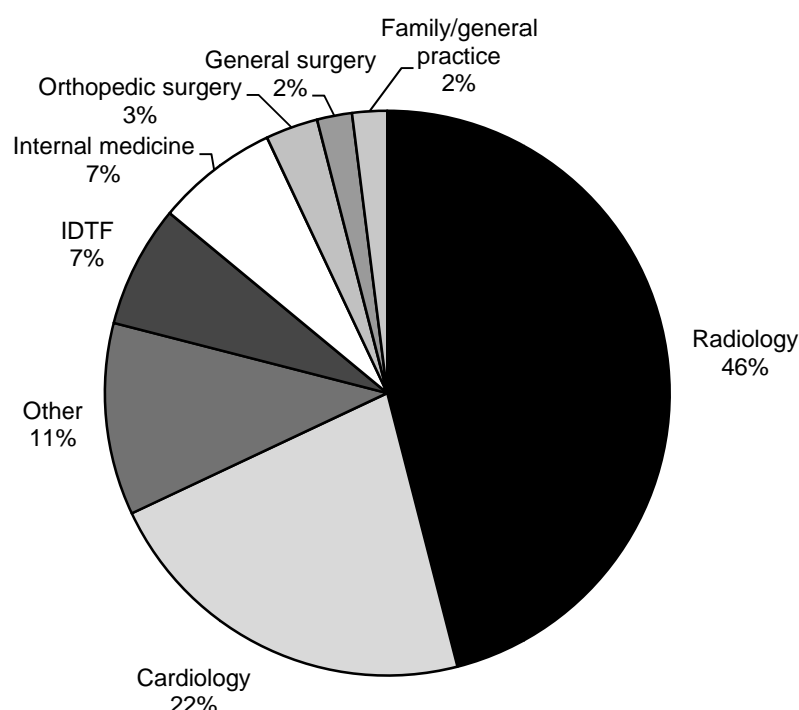


Note: CT (computed tomography), MRI (magnetic resonance imaging), PET (positron emission tomography). Standard imaging includes chest, musculoskeletal, and breast X-rays. Imaging procedures include stereoscopic X-ray guidance for delivery of radiation therapy, fluoroguide for spinal injection, and other interventional radiology procedures. Medicare payments include program spending and beneficiary cost sharing for physician fee-schedule imaging services. Payments include carrier-priced codes but exclude radiopharmaceuticals. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2004 and 2009.

- About one-third of Medicare spending for imaging under the physician fee schedule in 2009 was for computed tomography and magnetic resonance imaging (MRI) studies.
- Between 2000 and 2009, physician fee-schedule spending for imaging services grew by 5.9 percent per year per fee-for-service (FFS) beneficiary.
- Imaging spending declined from \$13.2 billion in 2006 to \$11.4 billion in 2007, largely as a result of a provision in the Deficit Reduction Act of 2005 that capped physician fee-schedule rates for the technical component of imaging services at the level of hospital outpatient rates. However, the number and complexity of imaging studies grew by 3.8 percent per FFS beneficiary from 2006 to 2007.
- Imaging spending resumed its growth in 2008, increasing by 3.8 percent per FFS beneficiary to \$11.7 billion. Although spending declined slightly from 2008 to 2009 (from \$11.7 billion to \$11.6 billion), the number and complexity of imaging services grew by 2.0 percent per FFS beneficiary. The slight decline in spending was largely due to changes in practice expense relative value units for imaging services and the adoption of a new comprehensive code for echocardiography.

**Chart 7-21. Radiologists received nearly half of physician fee-schedule payments for imaging services, 2009**



Note: IDTF (independent diagnostic testing facility). Medicare payments include program spending and beneficiary cost sharing for physician fee-schedule imaging services. Payments include carrier-priced codes but exclude radiopharmaceuticals. Total fee-schedule imaging spending was \$11.6 billion in 2009. IDTFs are independent of a hospital and physician's office and provide only outpatient diagnostic services. The other category includes urology, ophthalmology, gastroenterology, anesthesiology, and other specialties.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2009.

- Imaging services paid under Medicare's physician fee schedule involve two parts: the technical component, which covers the cost of the equipment, supplies, and nonphysician staff, and the professional component, which covers the physician's work in interpreting the study and writing a report. A provider who performs both the technical and the professional component of a study bills Medicare for a global service.
- Although radiologists received over three-quarters of total physician fee-schedule payments for professional component services in 2009, they accounted for much smaller shares of spending for global services (34 percent) and technical component services (14 percent).
- Between 2004 and 2009, the share of total imaging payments for independent diagnostic testing facilities, family/general practice, cardiology, and internal medicine declined. The share of imaging payments for radiology stayed about the same, and the share for other providers (such as general surgery and orthopedic surgery) increased.

## Web links. Ambulatory care

### Physicians

- For more information on Medicare's payment system for physician services, see MedPAC's Payment Basics series.

[http://medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_Physician.pdf](http://medpac.gov/documents/MedPAC_Payment_Basics_10_Physician.pdf)

- Chapter 4 of the MedPAC March 2011 Report to the Congress and Appendix A of the June 2011 Report to the Congress provide additional information on physician services.

[http://www.medpac.gov/chapters/Mar11\\_Ch04.pdf](http://www.medpac.gov/chapters/Mar11_Ch04.pdf)

[http://www.medpac.gov/chapters/Jun11\\_AppA.pdf](http://www.medpac.gov/chapters/Jun11_AppA.pdf)

- MedPAC's congressionally mandated report, *Assessing Alternatives to the Sustainable Growth Rate (SGR) System*, examines the SGR and analyzes alternative mechanisms for controlling physician expenditures under Medicare.

[http://www.medpac.gov/documents/Mar07\\_SGR\\_mandated\\_report.pdf](http://www.medpac.gov/documents/Mar07_SGR_mandated_report.pdf)

- Congressional testimony by the chairman and executive director of MedPAC discusses payment for physician services in the Medicare program. This includes:

Payments to selected fee-for-service providers (May 15, 2007)

[http://www.medpac.gov/documents/051507\\_WandM\\_Testimony\\_MedPAC\\_FFS.pdf](http://www.medpac.gov/documents/051507_WandM_Testimony_MedPAC_FFS.pdf)

Options to improve Medicare's payments to physicians (May 10, 2007)

[http://www.medpac.gov/documents/051007\\_Testimony\\_MedPAC\\_physician\\_payment.pdf](http://www.medpac.gov/documents/051007_Testimony_MedPAC_physician_payment.pdf)

Assessing alternatives to the sustainable growth rate system (March 6, 2007)

[http://www.medpac.gov/documents/030607\\_W\\_M\\_testimony\\_SGR.pdf](http://www.medpac.gov/documents/030607_W_M_testimony_SGR.pdf)

Assessing alternatives to the sustainable growth rate system (March 6, 2007)

[http://www.medpac.gov/documents/030607\\_E\\_C\\_testimony\\_SGR.pdf](http://www.medpac.gov/documents/030607_E_C_testimony_SGR.pdf)

Assessing alternatives to the sustainable growth rate system (March 1, 2007)

[http://www.medpac.gov/documents/030107\\_Finance\\_testimony\\_SGR.pdf](http://www.medpac.gov/documents/030107_Finance_testimony_SGR.pdf)

MedPAC recommendations on imaging services (July 18, 2006)

[http://medpac.gov/documents/071806\\_Testimony\\_imaging.pdf](http://medpac.gov/documents/071806_Testimony_imaging.pdf)

Medicare payment to physicians (July 25, 2006)

[http://medpac.gov/documents/072506\\_Testimony\\_physician.pdf](http://medpac.gov/documents/072506_Testimony_physician.pdf)

- The 2011 Annual Report of the Boards of Trustees of the Hospital Insurance and Supplementary Medical Insurance Trust Funds provides details on historical and projected spending on physician services.

<http://www.cms.gov/ReportsTrustFunds/downloads/tr2011.pdf>

- The Government Accountability Office issued a report in August 2009 about access to physician services within Medicare.

<http://www.gao.gov/new.items/d09559.pdf>

- The Center for Studying Health System Change also conducts research on patient access to health care.

<http://www.hschange.org>

### **Hospital outpatient services**

- For more information on Medicare's payment system for hospital outpatient services, see MedPAC's Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_opd.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_opd.pdf)

- Chapter 3 of the MedPAC March 2011 Report to the Congress provides information on the status of hospital outpatient departments including supply, volume, profitability, and cost growth.

[http://www.medpac.gov/chapters/Mar11\\_Ch03.pdf](http://www.medpac.gov/chapters/Mar11_Ch03.pdf)

- Section 2A of the MedPAC March 2006 Report to the Congress provides information on the current status of hold-harmless payments and other special payments for rural hospitals.

[http://www.medpac.gov/publications/congressional\\_reports/Mar06\\_Ch02a.pdf](http://www.medpac.gov/publications/congressional_reports/Mar06_Ch02a.pdf)

- Chapter 3A of the MedPAC March 2004 Report to the Congress provides additional information on hospital outpatient services, including outlier and transitional corridor payments.

[http://www.medpac.gov/publications/congressional\\_reports/Mar04\\_Ch3A.pdf](http://www.medpac.gov/publications/congressional_reports/Mar04_Ch3A.pdf)

- More information on new technology and pass-through payments can be found in Chapter 4 of the MedPAC March 2003 Report to the Congress.

[http://www.medpac.gov/publications/congressional\\_reports/Mar03\\_Ch4.pdf](http://www.medpac.gov/publications/congressional_reports/Mar03_Ch4.pdf)

### **Ambulatory surgical centers**

- For more information on Medicare's payment system for ambulatory surgical centers, see MedPAC's Payment Basics series.

[http://medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_ASC.pdf](http://medpac.gov/documents/MedPAC_Payment_Basics_10_ASC.pdf)

- Chapter 5 of the MedPAC March 2011 Report to the Congress provides additional information on ambulatory surgical centers.

[http://medpac.gov/chapters/Mar11\\_Ch05.pdf](http://medpac.gov/chapters/Mar11_Ch05.pdf)





SECTION

# 8

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## **Post-acute care**

**Skilled nursing facilities**

**Home health agencies**

**Inpatient rehabilitation facilities**

**Long-term care hospitals**

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**Chart 8-1. Number of most post-acute care providers grew or remained stable in 2010**

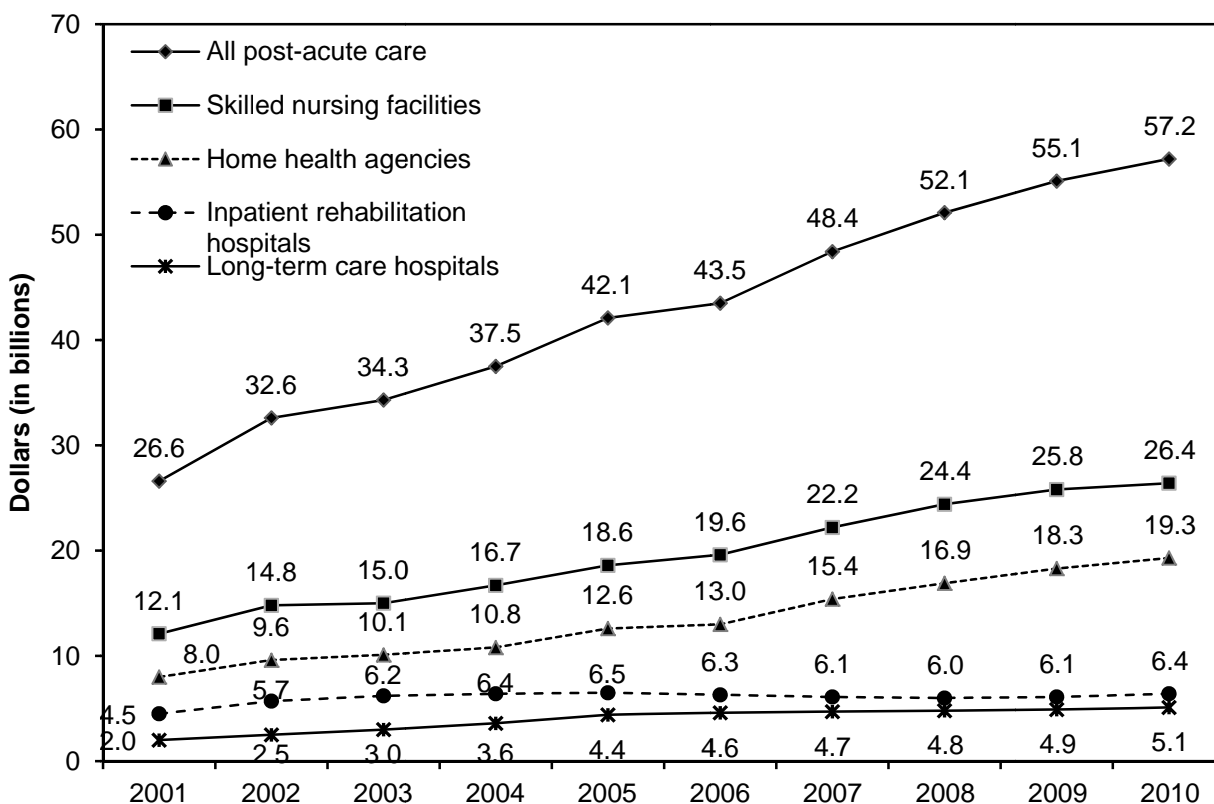
	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average annual percent change 2002–2010	Percent change 2009–2010
Home health agencies	7,057	7,342	7,804	8,314	8,955	9,404	10,036	10,961	11,488	6.5%	4.8%
Inpatient rehabilitation facilities	1,181	1,207	1,221	1,235	1,225	1,202	1,202	1,196	1,179	0.0	–1.4
Long-term care hospitals	297	334	366	392	398	406	424	435	437	4.9	0.5
Skilled nursing facilities	14,794	14,879	14,939	15,001	15,008	15,037	15,031	15,068	15,070	0.2	0.0

Note: The skilled nursing facility count does not include swing beds.

Source: MedPAC analysis of data from certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification's Providing Data Quickly system for 2002–2010 (home health agencies and skilled nursing facilities) and CMS Provider of Service data (inpatient rehabilitation facilities and long-term care hospitals).

- The number of home health agencies has increased substantially since 2002.
- The number of inpatient rehabilitation facilities (rehabilitation hospitals and rehabilitation units) declined slightly in 2010.
- In spite of a moratorium on new long-term care hospitals beginning in October 2007, the number of these facilities has continued to grow.
- The total number of skilled nursing facilities has remained about the same for four years, but the mix of facilities continues to shift from hospital-based to freestanding facilities. Hospital-based facilities make up 6 percent of all facilities, down from almost 11 percent in 2001.

**Chart 8-2. Medicare's spending on home health care and skilled nursing facilities fueled growth in FFS post-acute care expenditures**



Note: FFS (fee-for-service). These numbers are program spending only and do not include beneficiary copayments.

Source: CMS, Office of the Actuary.

- Increases in fee-for-service (FFS) spending on post-acute care have slowed in part due to expanded enrollment in managed care, whose spending is not included in this chart.
- Despite the slower growth, spending on all post-acute care still grew close to 4 percent between 2009 and 2010, fueled by increases in home health care and skilled nursing facility expenditures.
- FFS spending on inpatient rehabilitation hospitals declined between 2005 and 2008, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less intensive settings. However, spending on inpatient rehabilitation hospitals increased in 2009 and continued to increase in 2010.

**Chart 8-3. Since 2005, the share of Medicare stays and payments going to freestanding SNFs and for-profit SNFs has increased**

Type of SNF	Facilities		Medicare-covered stays		Medicare payments	
	2005	2009	2005	2009	2005	2009
All SNFs	100%	100%	100%	100%	100%	100%
Freestanding	92	94	87	92	93	96
Hospital based	8	6	13	8	7	5
Urban	67	70	79	81	81	83
Rural	33	30	21	19	19	17
For profit	68	68	66	69	72	74
Nonprofit	28	26	30	26	25	22
Government	5	5	4	4	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding or missing information about facility characteristics.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files 2005–2009.

- Freestanding skilled nursing facilities (SNFs) made up 94 percent of facilities in 2009.
- Freestanding SNFs treated 92 percent of stays (up 5 percentage points from 2005) and accounted for 96 percent of Medicare payments.
- Between 2005 and 2009, for-profit SNFs' share of Medicare-covered stays increased 3 percentage points and payments increased 2 percentage points.
- Urban SNFs' share of facilities, Medicare-covered stays, and payments increased between 2005 and 2009.

**Chart 8-4. Small declines in SNF days and admissions between 2008 and 2009**

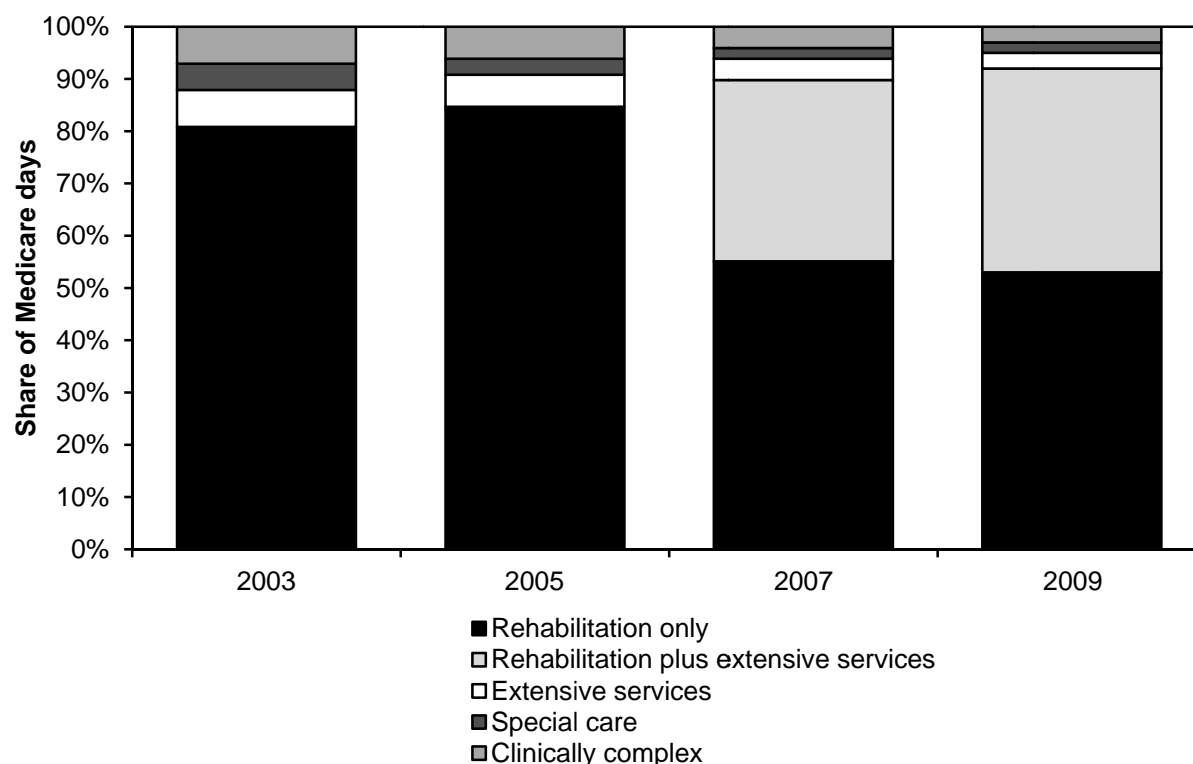
	2007	2008	2009	Change 2008–2009
Volume per 1,000 fee-for-service enrollees				
Covered admissions	72	73	72	–1.6%
Covered days	1,921	1,977	1,963	–0.7
Covered days per admission	26.7	27.0	27.3	0.9

Note: SNF (skilled nursing facility). Data include 50 states and the District of Columbia.

Source: Calendar year data from CMS, Office of Research, Development and Information.

- Between 2008 and 2009, covered days declined, reflecting fewer hospital admissions. A prior hospital stay is required for Medicare coverage.
- Covered admissions declined faster than covered days, resulting in a small increase in covered days per admission.
- Measures are reported on a per fee-for-service enrollee basis because the counts of days and admissions do not include the utilization of beneficiaries enrolled in Medicare Advantage (MA) plans. Because MA enrollment continued to increase, changes in utilization could reflect a smaller pool of users rather than changes in service use by the beneficiaries captured by the data.

**Chart 8-5. Case mix in freestanding SNFs shifted toward rehabilitation plus extensive services RUGs and away from other broad RUG categories**



Note: SNF (skilled nursing facility), RUG (resource utilization group). The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed. The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days, have required a ventilator or respiratory or tracheostomy care, or have received intravenous feeding within the past 7 days. Days are for freestanding SNFs with valid cost reports.

Source: MedPAC analysis of freestanding SNF cost reports.

- In 2009, rehabilitation resource utilization groups (RUGs) accounted for 92 percent of all Medicare days in freestanding skilled nursing facilities (SNFs). The nine rehabilitation plus extensive services RUGs, the highest payment case-mix groups, made up 39 percent of RUG days (compared with 36 percent in 2008). Within the rehabilitation case-mix groups, days in freestanding SNFs continued to shift toward the highest therapy groups (not shown).
- Some of the growth in total rehabilitation days may be explained by a shift in the site of care from inpatient rehabilitation facilities to SNFs. It also could reflect the payment incentives to furnish the services necessary to get patients classified into higher paying rehabilitation RUGs.
- Between 2003 and 2009, the share of clinically complex and special care days declined from 14 percent to 6 percent. Patients who previously would have been classified into these case-mix groups may have received enough therapy (75 minutes a week) to qualify them for a rehabilitation group.

**Chart 8-6. Freestanding SNF Medicare margins have exceeded 10 percent for seven years**

Type of SNF	2003	2004	2005	2006	2007	2008	2009
All	10.9%	13.8%	13.1%	13.3%	14.7%	16.6%	18.1%
Urban	10.3	13.2	12.6	13.1	14.6	16.3	18.0
Rural	13.9	16.2	15.2	14.3	15.5	18.0	18.7
For profit	13.4	16.2	15.2	15.8	17.3	19.1	20.3
Nonprofit	1.3	3.6	4.6	3.5	4.2	7.1	9.5
Government*	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: SNF (skilled nursing facility), N/A (not applicable).

\*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of freestanding SNF cost reports.

- Although aggregate Medicare margins for freestanding skilled nursing facilities (SNFs) have varied over the past 7 years, they have exceeded 10 percent every year since 2001 (early years not shown).
- Aggregate Medicare margins increased from 2008 to 2009 due to costs per day growing more slowly than payments per day. The growth in payments reflected the increased share of days classified into the highest paying resource utilization groups.
- Examining the distribution of 2009 margins, one-half of freestanding SNFs had margins of 18.7 percent or more. One-quarter had Medicare margins at or below 8.8 percent and one-quarter had margins of 26.7 percent or higher.



**Chart 8-7. Freestanding SNFs with relatively low costs and high quality maintained high Medicare margins**

Characteristic	SNFs with relatively low costs and good quality (9 percent)	Other SNFs
<b>Performance in 2008</b>		
Relative* community discharge rate	1.29	1.0
Relative* rehospitalization rate	0.84	1.0
Relative* cost per day	0.90	1.0
Median length of stay	35 days	41 days
Medicare margin	21.8%	17.4%
<b>Performance in 2009</b>		
Relative* cost per day	0.890	1.0
Median length of stay	35 days	40 days
Medicare margin	21.8%	18.3%
Total margin	5.3%	3.9%
Medicaid share of facility days	58%	62%

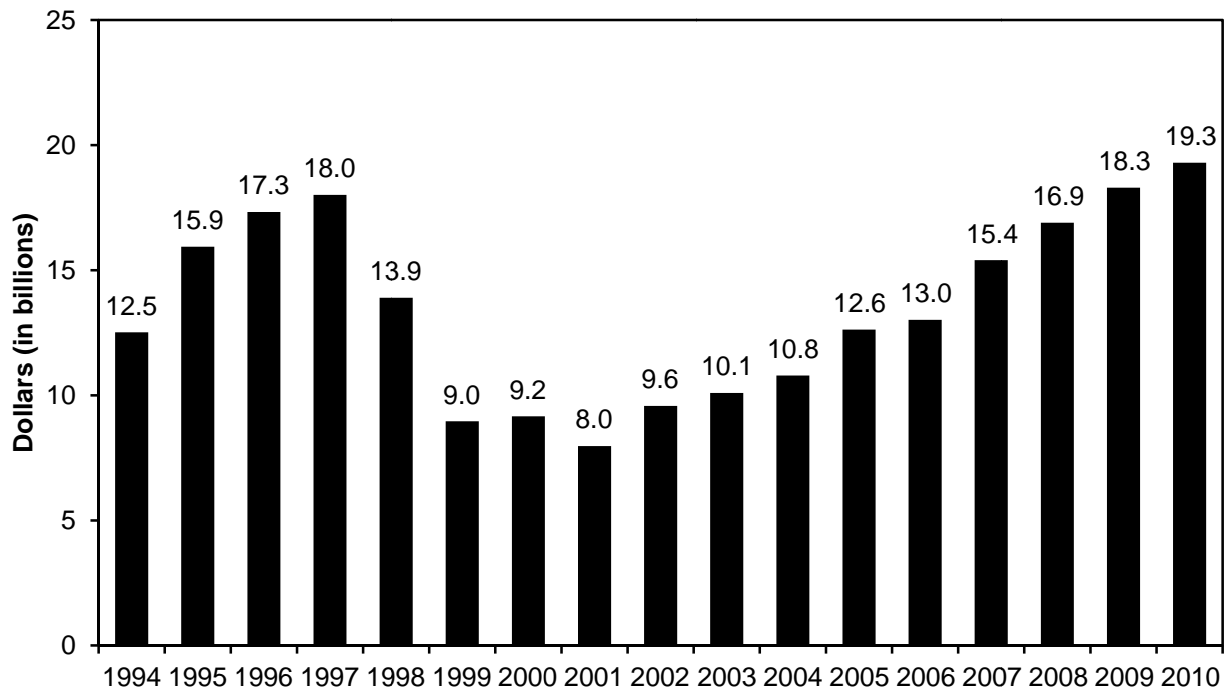
Note: SNF (skilled nursing facility). SNFs with relatively low costs and good quality were those in the lowest third of the distribution of cost per day, in the top third for one quality measure, and not in the bottom third for the other quality measure. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and rehospitalization for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) within 100 days of hospital discharge. Increases in rates of discharge to the community indicate improved quality; increases in rehospitalization rates for the five conditions indicate worsening quality. Quality measures were calculated for all facilities with more than 25 stays.

\*Measures are relative to the national average.

Source: MedPAC analysis of quality measures for 2005–2008 and Medicare cost report data for 2005–2009.

- Freestanding skilled nursing facilities (SNFs) can have relatively low costs and provide good quality of care while maintaining high margins.
- In 2008, compared with other SNFs, relatively efficient SNFs had community discharge rates that were 29 percent higher and rehospitalization rates that were 16 percent lower.
- In 2009, relatively efficient SNFs had costs per day that were 11 percent lower and shorter lengths of stay compared with other SNFs. Relatively efficient SNFs had Medicare margins in 2009 of 21.8 percent compared with a median margin for other SNFs of 18.3 percent.
- Relatively efficient SNFs were more likely to be located in a rural area and more likely to be nonprofit than other SNFs.

**Chart 8-8. Spending for home health care, 1994–2010**



Source: CMS, Office of the Actuary, 2011.

- Medicare home health care spending grew at an average annual rate of 20 percent from 1992 to 1997. During that period, the payment system was cost based. Eligibility had been loosened just before this period, and enforcing the program's standards became more difficult. Providers delivering billing for fraudulent or uncovered services also were a significant factor in the increase in expenditures.
- Spending began to fall after 1997, concurrent with the introduction of the interim payment system (IPS) based on costs with limits, tighter eligibility, and increased scrutiny from the Office of Inspector General.
- In October 2000, the prospective payment system (PPS) replaced the IPS. At the same time, eligibility for the benefit broadened slightly. Enforcement of the Medicare program's integrity standards continues at the regional home health intermediaries and state survey and certification agencies.
- Home health care has risen rapidly under PPS. Spending has risen by about 10 percent a year between 2001 and 2009.

**Chart 8-9. Provision of home health care changed after the prospective payment system started**

	1997	2001	2009	Percent change	
				1997–2001	2001–2009
Number of visits (in millions)	258	74	130	–72%	76%
Visit type (percent of total)					
Home health aide	48%	25%	16%		
Skilled nursing	41	50	55		
Therapy	10	24	28		
Medical social services	1	1	1		
Visits per home health patient	73	33	39	–55	20

Note: The prospective payment system began in October 2000.

Source: Home health Standard Analytic File; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002.

- The types and amount of home health care services that beneficiaries receive have changed. In 1997 home health aide services were the most frequently provided visit type, and beneficiaries who used home health care received an average of 73 visits.
- CMS began to phase in the interim payment system in October 1997 to stem the rise in spending for home health services and implemented a prospective payment system (PPS) in 2000 (see Chart 8-8). By 2001, total visits dropped by 72 percent, and average visits per user had dropped to 33. The increase in visits per user between 2001 and 2009 reflects home health users getting more episodes. The mix of services changed as well, with skilled nursing and therapy visits now accounting for over 80 percent of all services. Since PPS was implemented, the number of users and episodes has risen rapidly (see Chart 8-10).

## Chart 8-10. Trends in provision of home health care

	2002	2005	2009	Average annual percent change 2002–2009
Number of users (in millions)	2.5	3.0	3.3	3.9%
Percent of beneficiaries who used home health	7.2%	8.1%	9.4%	3.8
Episodes (in millions)	4.1	5.2	6.6	6.9
Episodes per home health patient	1.6	1.8	2.0	4.5
Visits per home health patient	31	32	39	3.7
Average payment per episode	\$2,329	\$2,470	\$2,879	3.1

Source: MedPAC analysis of the home health Standard Analytic File.

- Under the prospective payment system, in effect since 2000, the number of users and the number of episodes have risen significantly. In 2009, more than 3 million beneficiaries used the home health benefit.
- The number of home health episodes increased rapidly from 2002 to 2009. The number of beneficiaries using home health has also increased since 2002 but at a lower rate than the growth in episodes.
- The number of visits per home health patient increased from 31 in 2002 to 39 in 2009. This increase is primarily due to an increase in the number of home health episodes per patient.

**Chart 8-11. Margins for freestanding home health agencies**

	2008	2009	Percent of agencies 2009
All	17.0%	17.7%	100%
Geography			
Urban	17.3	17.9	83
Rural	16.0	16.6	17
Type of control			
For profit	18.6	18.7	84
Nonprofit	12.3	14.4	11
Volume quintile			
First	9.0	8.9	20
Second	9.3	8.7	20
Third	13.3	12.6	20
Fourth	16.0	16.5	20
Fifth	18.9	20.1	20

Source: MedPAC analysis of 2008–2009 Cost Report files.

- In 2009, about 78 percent of agencies had positive margins (not shown in chart). These estimated margins indicate that Medicare's payments are above the costs of providing services to Medicare beneficiaries for both rural and urban home health agencies (HHAs).
- These margins are for freestanding HHAs, which composed about 85 percent of all HHAs in 2009. HHAs are also based in hospitals and other facilities.
- HHAs that served mostly urban patients in 2009 had a weighted average margin of 17.9 percent; those that served mostly rural patients had a weighted average margin of 16.6 percent. The 2009 margin is consistent with the historically high margins the home health industry has experienced under the prospective payment system. The weighted average margin from 2001 to 2008 was 17.5 percent, indicating that most agencies have been paid well in excess of their costs under prospective payment.
- For-profit agencies in 2009 had a weighted average margin of 18.7 percent, and nonprofit agencies had a weighted average margin of 14.4 percent.
- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2009 have a weighted average margin of 8.9 percent, while those in the highest quintile have a weighted average margin of 20.1 percent.

**Chart 8-12. Most common types of inpatient rehabilitation facility cases, 2010**

Type of case	Share of cases
Stroke	20.5%
Hip fracture	14.4
Major joint replacement	11.2
Debility	9.9
Neurological	9.7
Brain injury	7.3
Other orthopedic	6.5
Cardiac conditions	5.0
Spinal cord injury	4.3
Other	11.3

Note: Other includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS (January through June of 2010).

- In 2010, the most frequent diagnosis for Medicare patients in inpatient rehabilitation facilities (IRFs) was stroke, representing close to 21 percent of cases, up from 2004, when stroke represented fewer than 17 percent of cases.
- Major joint replacement cases represented just over 11 percent of IRF admissions in 2010, down from 24 percent of cases in 2004, when major joint replacement was the most common IRF Medicare case type.

**Chart 8-13. Volume of IRF FFS patients remained stable in 2009, after declining from 2004 to 2007**

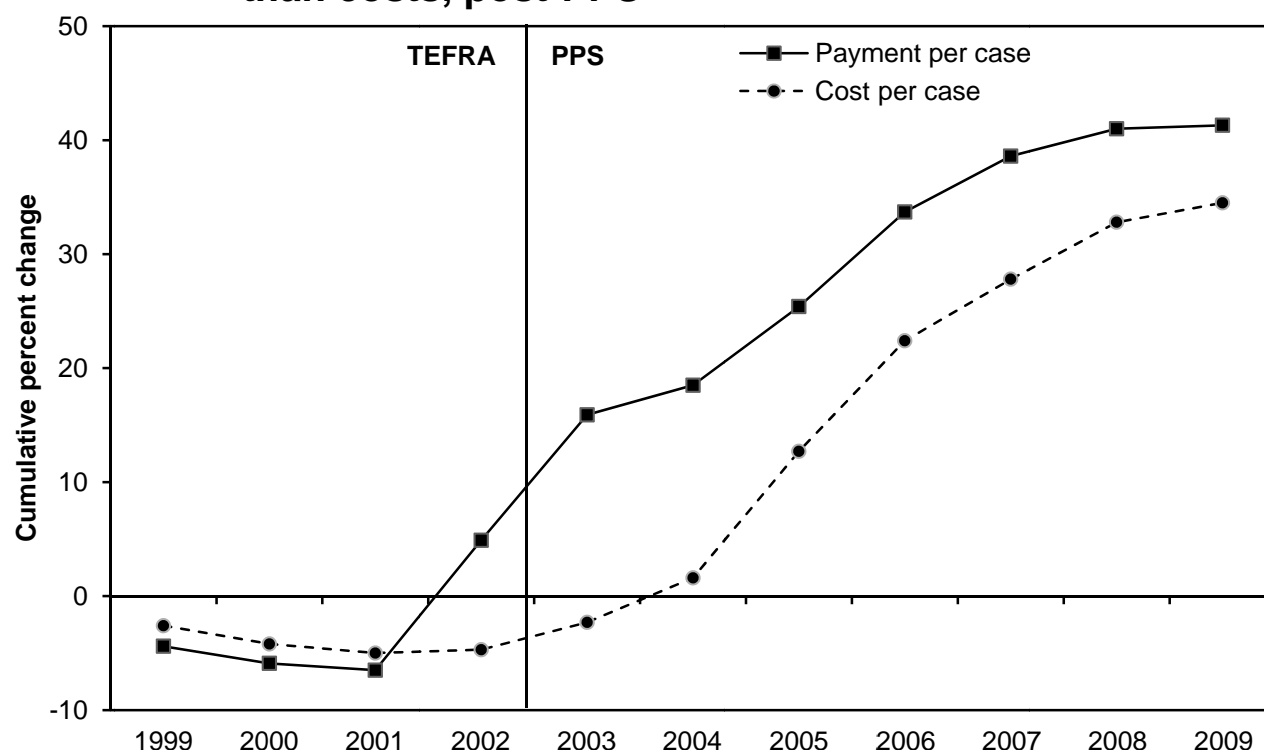
	2004	2007	2008	2009	Average annual percent change 2004–2008	Percent change 2008–2009
Number of IRF cases	455,000	364,000	356,000	361,000	–6.0%	1.5%
Unique patients per 10,000 FFS beneficiaries	113.2	93.2	91.5	92.9	–5.2	1.5
Payment per case	\$13,275	\$16,143	\$16,649	\$16,568	5.8	–0.5
Medicare spending (in billions)	\$6.43	\$6.08	\$5.96	\$6.07	–1.9	1.8
Average length of stay (in days)	12.7	13.2	13.3	13.1	1.2	–1.5

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). Numbers of cases reflect Medicare FFS utilization only.

Source: MedPAC analysis of MedPAR data from CMS. Total Medicare spending for IRF services from CMS Office of the Actuary.

- Inpatient rehabilitation facility (IRF) volume is measured by the number of IRF cases and the number of unique patients per 10,000 beneficiaries, which controls for changes in fee-for-service (FFS) enrollment.
- IRF volume declined after 2004 when enforcement of the compliance threshold (60 percent rule) was renewed.
- Medicare FFS spending on IRFs declined between 2004 and 2008 as more IRFs complied with the 60 percent rule and more Medicare beneficiaries enrolled in Medicare Advantage plans.
- In 2009, volume remained relatively stable, with the number of cases increasing from 2008 by 1.5 percent. The increase in the number of cases was due to an increase in both the number of unique beneficiaries receiving IRF care and an increase in the number of beneficiaries with more than one IRF stay in a year.
- IRF Medicare payments per case and average length of stay have increased since 2004, consistent with increasing average case mix of IRF patients. However, the average FFS payment per case declined by half a percent between 2008 and 2009 because payments in 2009 were held at 2007 levels.

**Chart 8-14. Overall IRFs' payments per case have risen faster than costs, post-PPS**



Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982). Data are from consistent two-year cohorts of IRFs. Costs are not adjusted for changes in case mix.

Source: MedPAC analysis of cost report data from CMS.

- Medicare costs and payments per case increased at similar rates before implementation of the prospective payment system (PPS) in 2002 as inpatient rehabilitation facilities (IRFs) received cost-based reimbursement under the Tax Equity and Fiscal Responsibility Act of 1982.
- Since implementation of the PPS, overall Medicare payments per case have increased faster than costs, even when costs per case grew rapidly between 2004 and 2006 as a result of enforcement of the compliance threshold.
- These trends in Medicare per case payments and costs are reflected in IRFs' Medicare margins, shown in Chart 8-15.



**Chart 8-15. Inpatient rehabilitation facilities' Medicare margin by type, 2001–2009**

	TEFRA	PPS					
	2001	2002	2003	2005	2007	2008	2009
All IRFs	1.5%	10.9%	17.7%	13.3%	11.9%	9.6%	8.4%
Hospital based	1.5	6.1	14.7	9.3	8.1	4.4	0.5
Freestanding	1.5	18.5	22.9	20.7	18.5	18.2	20.1
Urban	1.5	11.3	18.2	13.5	12.0	9.8	8.5
Rural	1.1	5.9	12.5	12.0	10.2	7.9	6.6
Nonprofit	1.6	6.5	14.5	10.2	9.6	5.6	2.3
For profit	1.2	18.7	23.9	19.8	16.9	17.0	19.1

Note: TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- The aggregate Medicare margin increased rapidly during the first two years of the inpatient rehabilitation facility (IRF) prospective payment system (PPS). Aggregate margins rose from just under 2 percent in 2001 to almost 18 percent in 2003.
- From 2003 to 2009, margins declined but remained high. This decline was largely due to reductions in patient volume over this time period that resulted in fewer patients among whom to distribute fixed costs. The 2007 to 2009 margin decrease was mainly a result of a zero update to the base rates for half of 2008 and for all of 2009 that resulted in Medicare payment rates remaining at 2007 levels.
- Freestanding and for-profit IRFs had substantially higher aggregate Medicare margins than hospital-based and nonprofit IRFs, continuing a trend that began with implementation of the IRF PPS in 2002.

**Chart 8-16. Top MS–LTC–DRGs made up more than half of LTCH discharges in 2009**

MS–LTC– DRG	Description	Discharges	Percentage
207	Respiratory system diagnosis with ventilator support 96+ hours	15,378	11.7%
189	Pulmonary edema & respiratory failure	9,438	7.2
871	Septicemia or severe sepsis without ventilator support 96+ hours with MCC	6,857	5.2
177	Respiratory infections & inflammations with MCC	4,690	3.6
592	Skin ulcers with MCC	3,913	3.0
949	Aftercare with CC/MCC	3,576	2.7
208	Respiratory system diagnosis with ventilator support <96 hours	2,729	2.1
190	Chronic obstructive pulmonary disease with MCC	2,687	2.0
193	Simple pneumonia & pleurisy with MCC	2,613	2.0
593	Skin ulcers with CC	2,103	1.6
539	Osteomyelitis with MCC	2,102	1.6
573	Skin graft and/or debridement for skin ulcer or cellulitis with MCC	1,984	1.5
559	Aftercare, musculoskeletal system & connective tissue with MCC	1,971	1.5
862	Postoperative & post-traumatic infections with MCC	1,953	1.5
291	Heart failure & shock with MCC	1,860	1.4
166	Other respiratory system OR procedures with MCC	1,810	1.4
178	Respiratory infections & inflammations with CC	1,797	1.4
682	Renal failure with MCC	1,783	1.4
314	Other circulatory system diagnosis with MCC	1,748	1.3
919	Complications of treatment with MCC	1,747	1.3
Top 20 MS–LTC–DRGs		72,739	55.3
Total		131,446	100.0

Note: MS–LTC–DRG (Medicare severity–long-term care–diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS–LTC–DRGs are the case-mix system for these facilities. Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- Cases in long-term care hospitals (LTCHs) are concentrated in a relatively small number of Medicare severity–long-term care–diagnosis related groups (MS–LTC–DRGs). In 2009, the top 20 MS–LTC–DRGs accounted for more than half of all cases.
- The most frequent diagnosis in LTCHs in 2009 was respiratory diagnosis with ventilator support for more than 96 hours. Eight of the top 20 diagnoses, representing 31 percent of all cases, were respiratory conditions.

**Chart 8-17. LTCH spending per FFS beneficiary has increased under PPS**

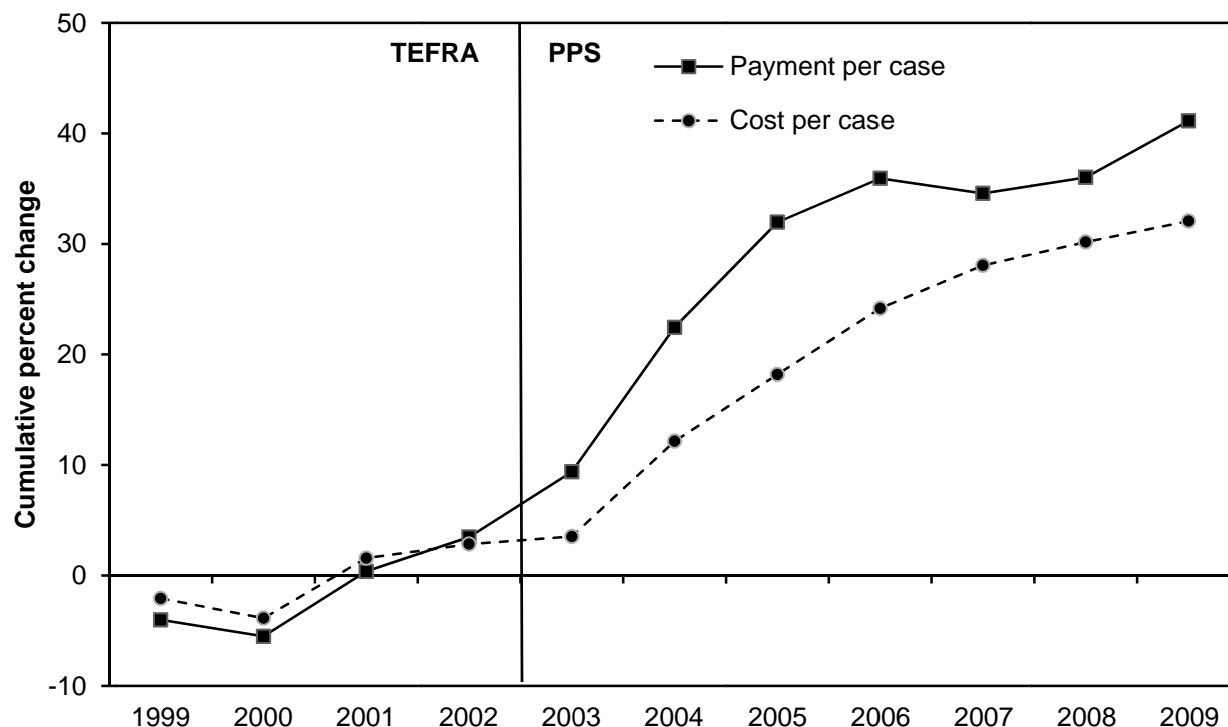
	2003	2005	2007	2008	2009	Average annual change		
						2003– 2005	2005– 2008	2008– 2009
Cases	110,396	134,003	129,202	130,869	131,446	10.2%	–0.8%	0.4%
Cases per 10,000 FFS beneficiaries	30.8	36.4	36.3	37.0	37.4	8.8	0.6	0.9
Spending per FFS beneficiary	\$75.2	\$122.2	\$126.5	\$130.4	\$139.3	27.5	2.2	6.8
Payment per case	\$24,758	\$33,658	\$34,769	\$35,200	\$37,465	16.6	1.5	6.4
Length of stay (in days)	28.8	28.2	26.9	26.7	26.4	–1.0	–1.8	–1.1

Note: LTCH (long-term care hospital), FFS (fee-for-service), PPS (prospective payment system). Growth in per FFS cases and spending was slowed in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, whose long-term care hospital use and spending are not included in these totals.

Source: MedPAC analysis of MedPAR data from CMS.

- Between 2008 and 2009, Medicare spending per fee-for-service beneficiary rose 6.8 percent, much more than the rate of growth in the number of cases.

**Chart 8-18. LTCHs' per case payment rose more quickly than costs in 2009**



Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of Medicare cost report data from CMS.

- Payment per case increased rapidly after the prospective payment system was implemented, climbing an average 16.6 percent per year between 2003 and 2005. Cost per case also increased rapidly during this period, albeit at a somewhat slower pace.
- Between 2005 and 2008, growth in cost per case outpaced that for payments, as regulatory changes to Medicare's payment policies for long-term care hospitals slowed growth in payment per case to an average of 1.5 percent per year.
- After the Congress delayed implementation of some of CMS's recent regulations, payments per case climbed 6.4 percent between 2008 and 2009. Cost per case, however, rose less than 2 percent.

**Chart 8-19. LTCHs' Medicare margins by type of facility**

Type of LTCH	Share of discharges (2009)	TEFRA	PPS						
		2002	2003	2004	2005	2006	2007	2008	2009
All	100%	−0.1%	5.2%	9.0%	11.9%	9.7%	4.8%	3.5%	5.7%
Urban	96	−0.1	5.2	9.2	11.9	9.9	5.0	3.8	6.0
Rural	4	−0.5	4.5	2.6	10.1	4.9	−0.7	−2.8	−3.7
Freestanding	70	0.1	5.6	8.4	11.3	9.3	4.3	3.1	4.9
Hospital within hospital	31	−0.5	4.2	10.6	13.1	10.8	5.8	4.4	7.6
Nonprofit	16	0.1	1.9	6.9	9.0	6.6	1.3	−2.4	−0.2
For profit	83	−0.1	6.3	10.0	13.1	10.9	5.9	5.1	7.3

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Columns may not sum to 100 percent due to rounding or missing data. Government-owned providers operate in a different context from other providers, so their margins are not reported here.

Source: MedPAC analysis of cost report data from CMS.

- After implementation of the prospective payment system, long-term care hospitals' (LTCHs') Medicare margins increased rapidly, from 5.2 percent in 2003 to 11.9 percent in 2005. Margins then fell as growth in payments per case leveled off. In 2009, however, LTCH margins began to increase again, reaching 5.7 percent.
- Financial performance in 2009 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which accounted for 83 percent of all Medicare discharges from LTCHs) was 7.3 percent, compared with −0.2 percent for nonprofit facilities (which accounted for 16 percent of all Medicare LTCH discharges). Rural LTCHs' aggregate margin was −3.7 percent, compared with 6.0 percent for their urban counterparts. Rural providers account for about 4 percent of all LTCHs, caring for a smaller volume of patients on average, which may result in poorer economies of scale.

**Chart 8-20. LTCHs in the top quartile of Medicare margins in 2009 had much lower costs**

Characteristics	High-margin LTCHs	Low-margin LTCHs
Mean total discharges (all payers)	533	410
Medicare patient share	66%	64%
Average length of stay (in days)	26	27
Mean per discharge:		
Standardized costs	\$26,123	\$37,647
Medicare payment	\$38,635	\$37,094
High-cost outlier payments	\$1,455	\$3,887
Share of:		
Cases that are SSOs	27%	35%
Medicare cases from primary-referring ACH	39	38
LTCHs that are for-profit	92	70

Note: LTCH (long-term care hospital), SSO (short-stay outlier), ACH (acute care hospital). Includes only established LTCHs—those that filed valid cost reports in both 2008 and 2009. High-margin LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Average primary referring ACH referral share indicates the mean share of patients who are referred to LTCHs from each LTCH's primary referring ACH.

Source: MedPAC analysis of LTCH cost reports and MedPAR data from CMS.

- A quarter of all long-term care hospitals (LTCHs) had margins in excess of 15.7 percent, while another quarter had margins below –3.9 percent.
- Lower per discharge costs, rather than higher payments, drove the differences in financial performance between LTCHs with the lowest and highest Medicare margins. Low-margin LTCHs had standardized costs per discharge that were almost 50 percent higher than high-margin LTCHs (\$37,647 vs. \$26,123).
- High-cost outlier payments per discharge for low-margin LTCHs were more than double those of high-margin LTCHs (\$3,887 vs. \$1,455). At the same time, short-stay outliers made up a larger share of low-margin LTCHs' cases. Low-margin LTCHs thus cared for disproportionate shares of patients who are high-cost outliers and patients who have shorter stays. Both types of patients can have a negative effect on LTCHs' margins. LTCHs lose money on high-cost outlier cases since, by definition, they generate costs that exceed payments. Payments for short-stay outliers cannot be more than 100 percent of the costs of the case.
- Low-margin LTCHs service fewer patients overall. Poorer economies of scale may therefore affect low-margin LTCHs' costs.
- Low-margin LTCHs were far less likely to be for profit than were their high-margin counterparts.

## Web links. Post-acute care

### Skilled nursing facilities

- Chapter 7 of MedPAC's March 2011 Report to the Congress provides information about the supply, quality, service use, and Medicare margins for skilled nursing facilities. Chapter 7 of MedPAC's June 2008 Report to the Congress provides information about alternative designs for Medicare's prospective payment system that would more accurately pay providers for their skilled nursing facility services. *Medicare payment basics: Skilled nursing facility payment system* provides a description of how Medicare pays for skilled nursing facility care.

[http://www.medpac.gov/chapters/Mar11\\_Ch07.pdf](http://www.medpac.gov/chapters/Mar11_Ch07.pdf)

[http://www.medpac.gov/chapters/Jun08\\_Ch07.pdf](http://www.medpac.gov/chapters/Jun08_Ch07.pdf)

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_SNF.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_SNF.pdf)

- The official Medicare website provides information on skilled nursing facilities, including the payment system and other related issues.

<http://www.cms.gov/SNFPPS/>

### Home health services

- Chapter 8 of MedPAC's March 2011 Report to the Congress, Chapter 2E of MedPAC's March 2009 Report to the Congress, Chapter 4 of MedPAC's June 2007 Report to the Congress, and Chapter 5 of MedPAC's June 2006 Report to the Congress provide information on home health services. *Medicare payment basics: Home health care services payment system* provides a description of how Medicare pays for home health care.

[http://www.medpac.gov/chapters/Mar11\\_Ch08.pdf](http://www.medpac.gov/chapters/Mar11_Ch08.pdf)

[http://www.medpac.gov/chapters/Mar09\\_Ch02e.pdf](http://www.medpac.gov/chapters/Mar09_Ch02e.pdf)

[http://www.medpac.gov/chapters/Jun07\\_Ch04.pdf](http://www.medpac.gov/chapters/Jun07_Ch04.pdf)

[http://www.medpac.gov/publications/congressional\\_reports/Jun06\\_Ch05.pdf](http://www.medpac.gov/publications/congressional_reports/Jun06_Ch05.pdf)

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_HHA.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_HHA.pdf)

- The official Medicare website provides information on the quality of home health care and additional information on new policies, statistics, and research as well as information on home health spending and use of services.

<http://www.cms.gov/HomeHealthPPS/>

### **Inpatient rehabilitation facilities**

- Chapter 9 of MedPAC's March 2011 Report to the Congress provides information on inpatient rehabilitation facilities. *Medicare payment basics: Rehabilitation facilities (inpatient) payment system* provides a description of how Medicare pays for inpatient rehabilitation facility services.

[http://www.medpac.gov/chapters/Mar11\\_Ch09.pdf](http://www.medpac.gov/chapters/Mar11_Ch09.pdf)

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_IRF.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_IRF.pdf)

- CMS provides information on the inpatient rehabilitation facility prospective payment system.

<http://www.cms.gov/InpatientRehabFacPPS/>

### **Long-term care hospitals**

- Chapter 10 of MedPAC's March 2011 Report to the Congress provides information on long-term care hospitals. *Medicare payment basics: Long-term care hospital services payment system* provides a description of how Medicare pays for long-term care hospital services.

[http://www.medpac.gov/chapters/Mar11\\_Ch10.pdf](http://www.medpac.gov/chapters/Mar11_Ch10.pdf)

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_LTCH.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_LTCH.pdf)

- CMS also provides information on long-term care hospitals, including the long-term care hospital prospective payment system.

<http://www.cms.gov/LongTermCareHospitalPPS/>



SECTION

9

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## **Medicare Advantage**

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**Chart 9-1. MA plans available to virtually all Medicare beneficiaries**

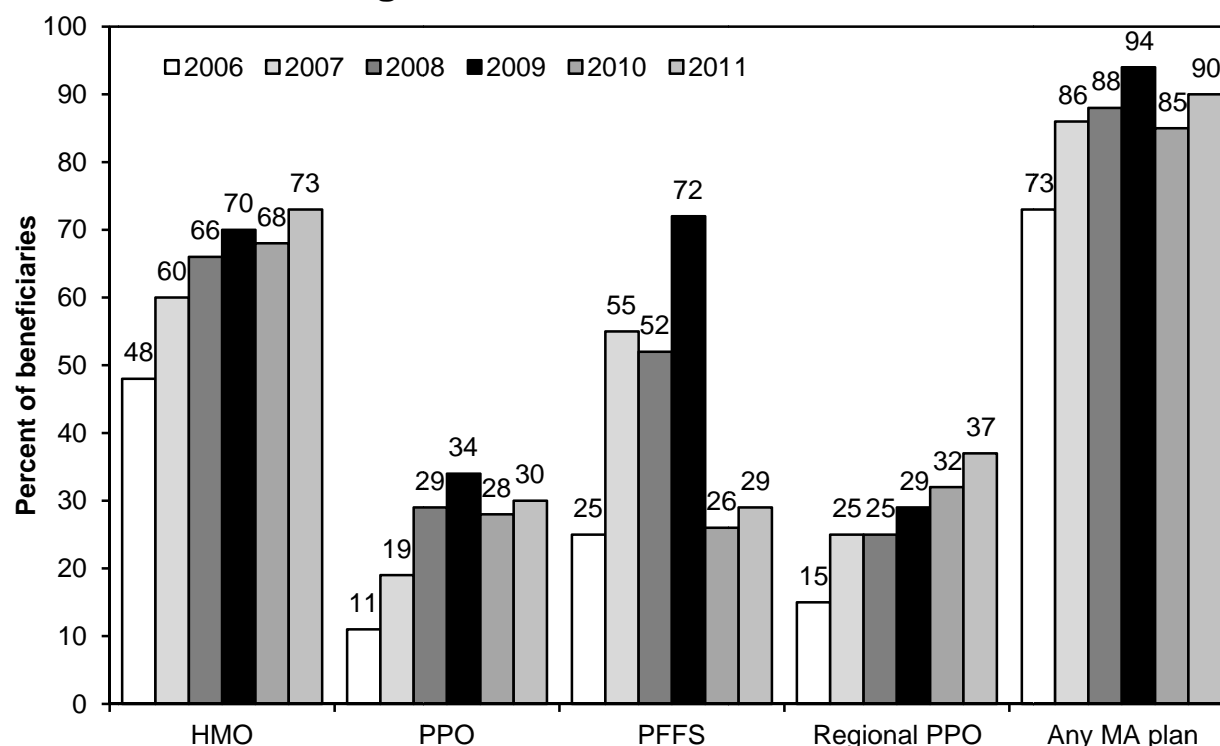
	CCPs			PFFS	Any MA plan	Average plan offerings per county
	HMO or local PPO	Regional PPO	Any CCP			
2005	67%	N/A	67%	45%	84%	5
2006	80	87	98	80	100	12
2007	82	87	99	100	100	20
2008	85	87	99	100	100	35
2009	88	91	99	100	100	34
2010	91	86	99	100	100	21
2011	92	86	99	63	100	12

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), N/A (not applicable). These data do not include plans that have restricted enrollment or are not paid based on the MA plan bidding process (special needs plans, cost-based plans, employer-only plans, and certain demonstration plans).

Source: MedPAC analysis of plan finder data from CMS.

- There are four types of plans, three of which are coordinated care plans (CCPs.) Local CCPs include local preferred provider organizations (PPOs) and HMOs, which have comprehensive provider networks and limit or discourage use of out-of-network providers. Local CCPs may choose which individual counties to serve. Regional CCPs (regional plans are required by statute to be PPOs) cover entire state-based regions and have networks that may be looser than the ones required of local PPOs. Regional PPOs were available beginning in 2006. Private fee-for-service (PFFS) plans, which previously were not CCPs, are now (as of 2011) required to have networks in areas with two or more CCPs. In areas where there are not two or more CCPs, PFFS plans are not required to have networks and enrollees are free to use any Medicare provider.
- Local CCPs are available to 92 percent of Medicare beneficiaries in 2011—up from 67 percent in 2005. Regional PPOs are available to 86 percent of beneficiaries. The availability of Medicare Advantage (MA) PFFS plans has declined from 100 percent of beneficiaries in 2010 to 63 percent of beneficiaries in 2011. The decline is due to new provider network requirements in most of the country. For the past six years, virtually 100 percent of Medicare beneficiaries have had MA plans available, up from 84 percent in 2005.
- The number of plans from which beneficiaries may choose in 2011 is about the same as in 2006. In 2011, beneficiaries can choose from an average of 12 plans operating in their counties. This number has continued to decrease since 2009, reflecting CMS's 2010 effort to reduce the number of duplicative plans and plans with small enrollment and the 2011 network requirements for PFFS plans.

**Chart 9-2. Access to zero-premium plans with MA drug coverage, 2006–2011**

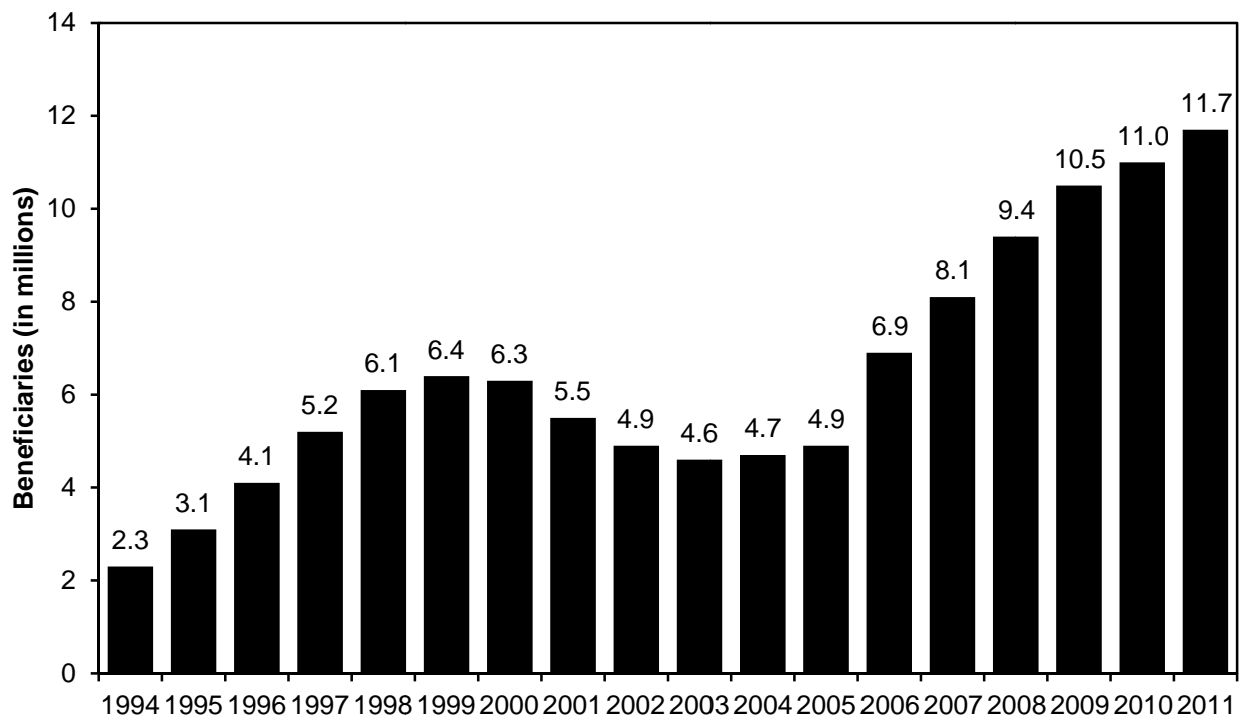


Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of bid and plan finder data from CMS.

- Across all plan types, the availability of “zero-premium” plans—plans with no premium payments other than the Medicare Part B premium—increased in 2011. More beneficiaries can obtain a Medicare Advantage–Prescription Drug (MA–PD) plan, an MA plan that includes Part D drug coverage, for which the enrollee pays no premium for either the drug coverage or the coverage of Medicare Part A and Part B services. In 2011, 90 percent of Medicare beneficiaries have access to at least one MA–PD plan with no premium (beyond the Medicare Part B premium) for the combined coverage (and no premium for any non-Medicare-covered benefits included in the benefit package), compared with 85 percent in 2010.
- Seventy-three percent of beneficiaries have zero-premium MA–PD HMOs available, while MA–PD preferred provider organizations (PPOs) without premiums are much less widely available. However, zero-premium regional PPOs are more available than they have been in the past. Private fee-for-service plans offering zero premiums and Part D drug coverage are available to 29 percent of beneficiaries in 2011.
- In most cases, MA plan enrollees continue paying their Medicare Part B premium, but some MA–PD plans use rebate dollars to reduce or eliminate their enrollees’ Part B premium obligation.

**Chart 9-3. Enrollment in MA plans, 1994–2011**



Note: MA (Medicare Advantage).

Source: Medicare managed care contract reports and monthly summary reports, CMS.

- Medicare enrollment in private health plans paid on an at-risk capitated basis is at an all-time high at 11.7 million enrollees (25 percent of all Medicare beneficiaries). Enrollment rose rapidly throughout the 1990s, peaking at 6.4 million enrollees in 1999, and then declined to a low of 4.6 million enrollees in 2003. Medicare Advantage enrollment has increased steadily since 2003.

**Chart 9-4. Changes in enrollment vary among major plan types**

Plan type	Total enrollees (in thousands)				Percentage change 2010–2011
	February 2008	February 2009	February 2010	February 2011	
Local CCPs	6,830	7,625	8,534	9,993	17%
Regional PPOs	257	377	760	1,132	49
PFFS	2,057	2,353	1,657	588	–65

Note: CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service). Local CCPs include health maintenance organizations and local PPOs.

Source: CMS health plan monthly summary reports.

- Enrollment in local coordinated care plans (CCPs) grew slower than enrollment in regional preferred provider organizations (PPOs) over the past year, while enrollment in private fee-for-service (PFFS) plans declined. Combined enrollment in the three types of plans grew by 7 percent from February 2010 to February 2011.
- While still the dominant form of enrollment, local CCP enrollment grew 17 percent over the past year, and enrollment in regional PPOs grew by 49 percent from a lower base. It is likely that much of the enrollment growth in local CCPs and regional PPOs came from the 65 percent decline in PFFS enrollment in the same time period.

**Chart 9-5. MA and cost plan enrollment by state and type of plan, 2011**

State	Medicare eligibles (in thousands)	Distribution (in percent) of enrollees by plan type					Total
		HMO	Local PPO	Regional PPO	PFFS	Cost	
Alabama	844	13%	7%	1%	0%	0%	21%
Alaska	66	0	0	0	0	0	1
Arizona	872	35	2	1	1	0	40
Arkansas	532	5	2	2	5	0	15
California	4,744	34	0	2	0	0	37
Colorado	622	26	3	0	2	4	34
Connecticut	568	15	2	2	0	0	19
Delaware	149	2	1	0	0	0	4
Florida	3,339	24	1	7	0	0	32
Georgia	1,237	5	8	4	5	0	22
Hawaii	207	14	9	13	0	7	43
Idaho	229	10	14	0	5	1	29
Illinois	1,842	5	2	1	0	0	9
Indiana	1,007	1	7	7	2	0	17
Iowa	517	5	5	1	1	2	13
Kansas	433	3	5	1	2	1	11
Kentucky	761	3	4	8	1	1	17
Louisiana	686	21	1	1	2	0	24
Maine	265	7	6	0	1	0	13
Maryland	786	3	1	0	0	3	8
Massachusetts	1,061	15	2	1	0	0	18
Michigan	1,654	10	12	1	1	0	23
Minnesota	786	15	4	2	0	23	44
Mississippi	497	4	2	2	2	0	10
Missouri	1,003	14	4	1	3	0	22
Montana	170	0	7	1	7	0	15
Nebraska	279	5	2	1	3	1	12
Nevada	354	27	2	2	1	0	31
New Hampshire	219	0	1	0	5	0	6
New Jersey	1,329	12	1	0	0	0	13
New Mexico	313	18	7	0	1	0	26
New York	2,991	23	6	1	1	0	31
North Carolina	1,489	10	3	1	4	0	18
North Dakota	109	0	1	0	3	4	9
Ohio	1,899	14	8	10	1	1	34
Oklahoma	602	10	3	0	2	0	15
Oregon	618	22	19	0	0	0	42
Pennsylvania	2,277	24	12	0	1	0	38
Puerto Rico	660	60	8	0	0	0	69
Rhode Island	183	27	1	6	0	0	35
South Carolina	774	2	5	5	4	0	16
South Dakota	137	0	3	1	3	2	9
Tennessee	1,056	20	4	1	1	0	25
Texas	3,001	14	2	2	1	1	20
Utah	283	16	13	0	5	1	35
Vermont	112	0	1	2	2	0	5
Virginia	1,144	2	4	1	5	1	14
Washington	969	19	5	0	1	0	26
Washington, DC	78	2	1	0	0	7	10
West Virginia	380	1	6	10	2	3	23
Wisconsin	911	14	8	3	2	3	30
Wyoming	80	0	1	0	3	1	6
U.S. total	47,123	17	5	2	1	1	26

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). Cost plans are not MA plans; they submit cost reports to CMS rather than bids. Totals may not sum due to rounding.

Source: CMS enrollment and population data, 2010–2011.

- Medicare private plans attract more beneficiaries in some areas than in others. At the state level, private plans attract only 1 percent of beneficiaries in Alaska. The highest penetrations of Medicare private plans are in Puerto Rico, Minnesota, Hawaii, and Oregon, with 69 percent, 44 percent, 43 percent, and 42 percent of beneficiaries, respectively, enrolled in plans.
- The popularity of different types of plans varies as well. For example, some states have almost their entire plan enrollment in private fee-for-service (PFFS) plans, while other states have little or none of their enrollment in PFFS plans.

**Chart 9-6. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2011**

	All Plans	HMOs	Local PPOs	Regional PPOs	PFFS
Benchmarks/FFS	113%	113%	116%	110%	116%
Bids/FFS	100	97	109	104	110
Payments/FFS	110	109	114	110	114

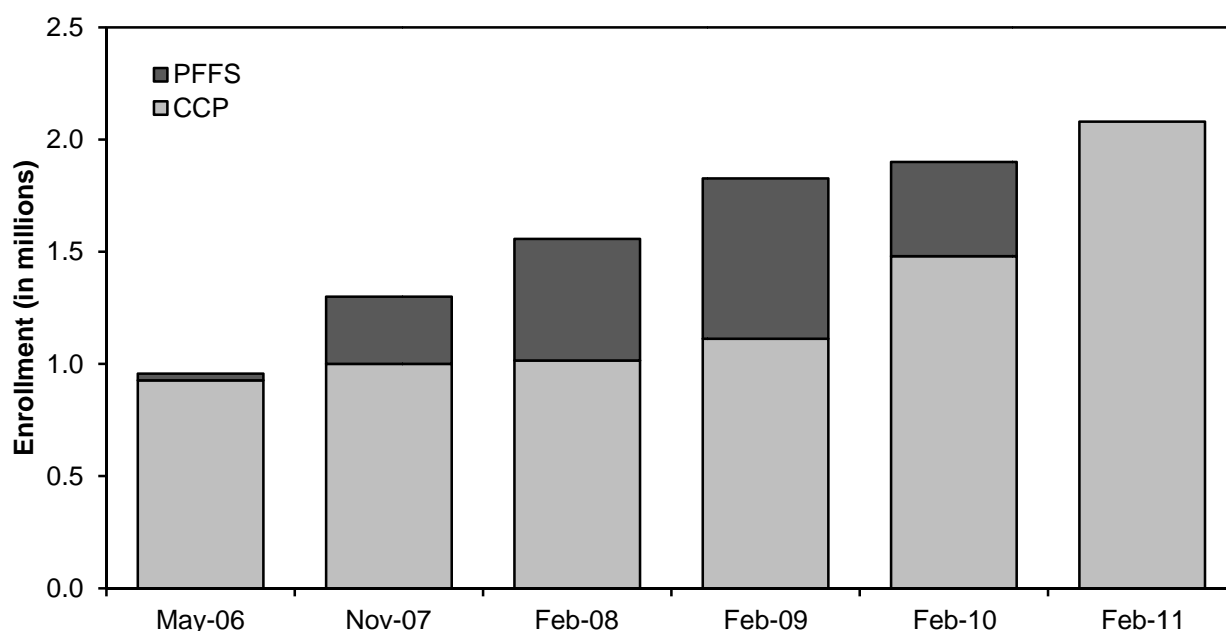
Note: MA (Medicare Advantage), FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of plan bid data from CMS, November 2010.

- Since 2006, plan bids have partially determined the Medicare payments they receive. Plans bid to offer Part A and Part B coverage to Medicare beneficiaries (Part D coverage is handled separately). The bid includes plan administrative cost and profit. CMS bases the Medicare payment for a private plan on the relationship between its bid and its applicable benchmark.
- The benchmark is an administratively determined bidding target. Legislation in 1997 established benchmarks in each county, which included a floor—a minimum amount below which no county benchmarks could go. By design, the floor rate exceeded fee-for-service (FFS) spending in many counties. Benchmarks are updated yearly by the national growth in FFS spending.
- If a plan's bid is above the benchmark, then the plan receives the benchmark as payment from Medicare and enrollees have to pay an additional premium that equals the difference. If a plan's bid is below the benchmark, the plan receives its bid, plus a "rebate," defined by law as 75 percent of the difference between the plan's bid and its benchmark. The plan must then return the rebate to its enrollees in the form of supplemental benefits, lower cost sharing, or lower premiums.
- We estimate that MA benchmarks average 113 percent of FFS spending when weighted by MA enrollment. The ratio varies by plan type, because different types of plans tend to draw enrollment from different types of areas.
- Plans' enrollment-weighted bids average 100 percent of FFS spending. We estimate that HMOs bid an average of 97 percent of FFS spending, while bids from other plan types average at least 104 percent of FFS spending. These numbers suggest that HMOs can provide the same services for less than FFS, while other plan types tend to charge more.
- We project that 2011 MA payments will be 110 percent of FFS spending. It is likely this number will decline significantly over the next few years as benchmarks are gradually reduced relative to FFS levels to meet requirements under the Patient Protection and Affordable Care Act of 2010.
- The ratio of payments relative to FFS spending varies by the type of Medicare Advantage plan. HMOs and regional preferred provider organization (PPO) payments are estimated to be 109 percent and 110 percent of FFS, respectively, while payments to private fee-for-service and local PPOs will average 114 percent.



**Chart 9-7. Enrollment in employer group MA plans, 2006–2011**

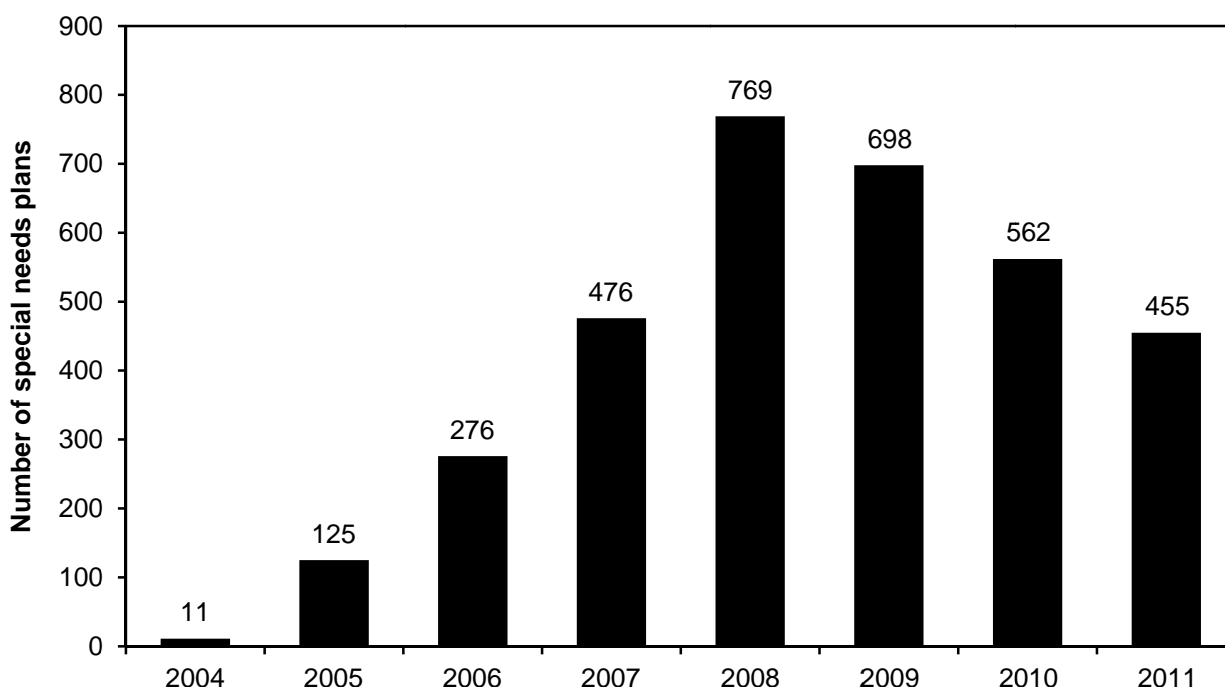


Note: MA (Medicare Advantage), PFFS (private fee-for-service), CCP (coordinated care plan).

Source: CMS enrollment data.

- While most Medicare Advantage (MA) plans are available to any Medicare beneficiary residing in a given area, some MA plans are available only to retirees whose Medicare coverage is supplemented by their former employer or union. These plans are called employer group plans. Such plans are usually offered through insurers and are marketed to groups formed by employers or unions rather than to individual beneficiaries.
- In the last five years, enrollment in employer group plans has more than doubled, while overall MA enrollment grew by about 65 percent. As of February 2011, about 2.1 million enrollees were in employer group plans, or about 18 percent of all MA enrollees.
- Under a requirement in the Medicare Improvements for Patients and Providers Act of 2008, employer group plans were required to have networks and after 2010 could no longer be private fee-for-service (PFFS) plans.
- Our analysis of MA bid data shows that employer group plans on average have bids that are higher relative to FFS spending than individual plans, meaning that group plans appear less efficient than individual market MA plans. Employer group plans bid an average of 108 percent of FFS, compared with 99 percent of FFS for individual plans (not shown in chart above).

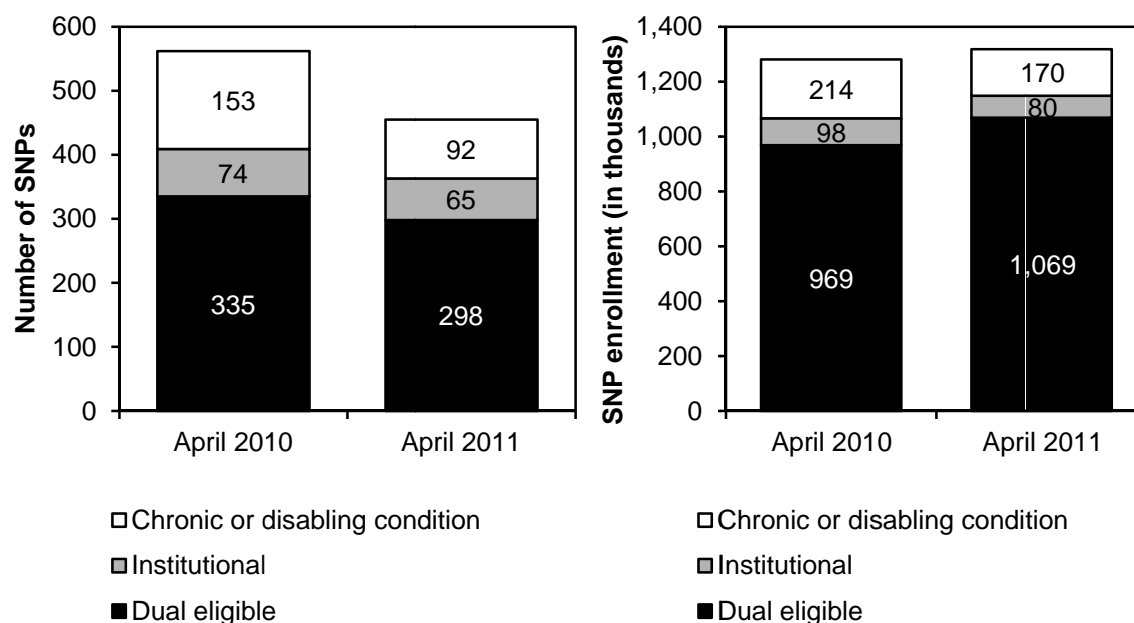
**Chart 9-8. Number of special needs plans continues to decline from 2008 peak**



Source: CMS special needs plans fact sheet and data summary, February 14, 2006, and CMS special needs plans comprehensive reports, March 21, 2007, April 2008, April 2009, April 2010, and April 2011.

- The Congress created special needs plans (SNPs) as a new Medicare Advantage (MA) plan type in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to provide a common framework for the existing plans serving special needs beneficiaries and to expand beneficiaries' access to and choice among MA plans.
- In 2011, there are 455 SNPs. As is the case with all MA plans, this number marks a steady decrease from 2008 as CMS has made efforts to reduce the number of duplicative plans and plans with small enrollment.
- SNPs were originally authorized for five years. SNP authority was extended, subject to new requirements, by the Medicare, Medicaid, and SCHIP Extension Act of 2007, the Medicare Improvements for Patients and Providers Act of 2008, and the Patient Protection and Affordable Care Act of 2010. Absent congressional action, SNP authority will expire at the end of 2014.

**Chart 9-9. Number of SNPs decreased while SNP enrollment rose from 2010 to 2011**



Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, April 2010 and 2011.

- Although the number of special needs plans (SNPs) decreased by 19 percent from April 2010 to April 2011, the number of SNP enrollees increased by 3 percent.
- In 2011, most SNPs (66 percent) are for dual-eligible beneficiaries, while 20 percent are for beneficiaries with chronic conditions, and 14 percent are for beneficiaries who reside in institutions (or reside in the community but have a similar level of need).
- Enrollment in SNPs has grown from 0.8 million in March 2007 (not shown) to 1.3 million in April 2011.
- The availability of SNPs has changed slightly and varies by type of special needs population served. In 2011, 76 percent of beneficiaries reside in areas where SNPs serve dual-eligible beneficiaries (down from 79 percent in 2010), 47 percent live where SNPs serve institutionalized beneficiaries (down from 49 percent), and 46 percent live where SNPs serve beneficiaries with chronic conditions (down from 63 percent).

## Web links. Medicare Advantage

- Chapter 12 of MedPAC's March 2011 Report to the Congress provides information on Medicare Advantage plans.

[http://www.medpac.gov/chapters/Mar11\\_Ch12.pdf](http://www.medpac.gov/chapters/Mar11_Ch12.pdf)

- More information on the Medicare Advantage program payment system can be found in MedPAC's Medicare Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_MA.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_MA.pdf)

- CMS provides information on Medicare Advantage and other Medicare managed care plans.

<http://www.cms.gov/HealthPlansGenInfo/>

- The official Medicare website provides information on plans available in specific areas and the benefits they offer.

<http://www.medicare.gov/>

SECTION

# 10

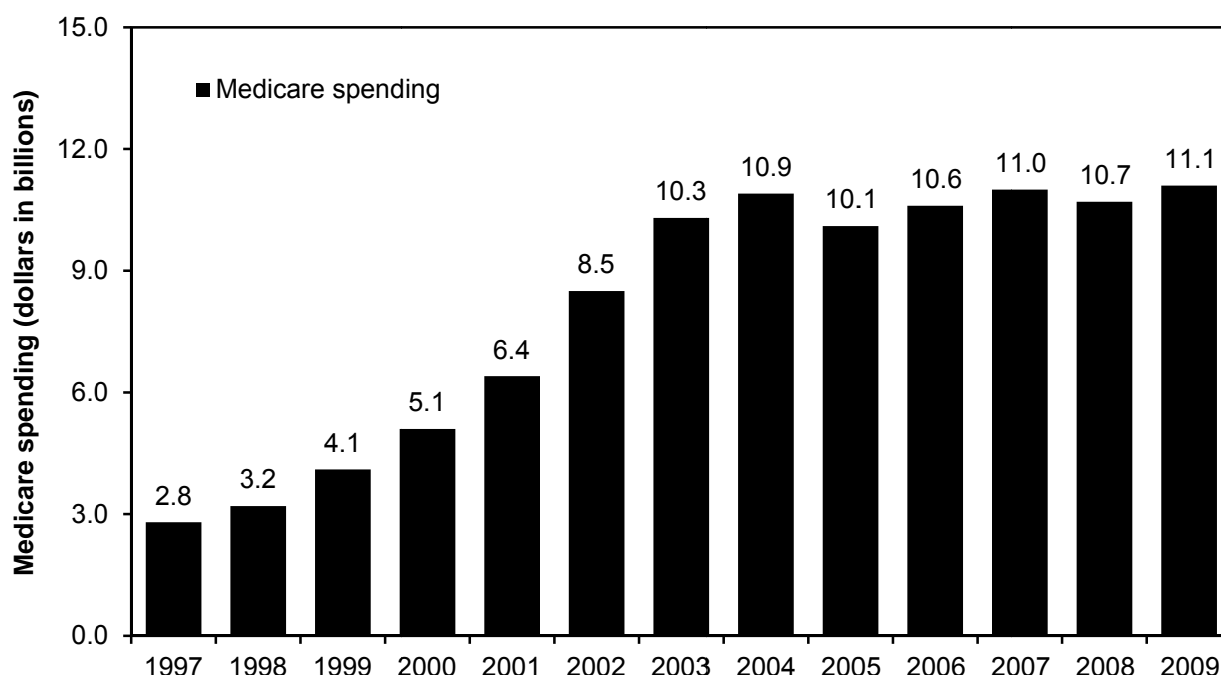
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## **Prescription drugs**

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**Chart 10-1. Medicare spending for Part B drugs administered in physicians' offices or furnished by suppliers**



Note: Data include Part B–covered drugs administered in physicians' offices or furnished by suppliers (e.g., certain oral drugs and drugs used with durable medical equipment). Data do not include Part B–covered drugs furnished in hospital outpatient departments or dialysis facilities.

Source: MedPAC analysis of Medicare claims data.

- Spending for Part B drugs administered in physicians' offices or furnished by suppliers totaled about \$11.1 billion in 2009, up 3.5 percent from the 2008 level.
- Medicare spending on Part B drugs increased at an average rate of 25 percent per year from 1997 to 2003. In 2005, the Medicare payment rate changed from one based on the average wholesale price to 106 percent of the average sales price. With the move to the new payment system, spending declined 8 percent in 2005. Since then spending has increased modestly, growing at an average rate of 2.3 percent per year since 2005.
- In addition to the new payment system, another factor contributing to the modest growth in Part B spending is reduced use of darbepoetin alfa and epoetin alfa. Annual Part B spending on these products declined by nearly \$1 billion between 2006 and 2009 due in part to changes in CMS coverage policy and Food and Drug Administration labeling.
- This total does not include drugs provided through outpatient departments of hospitals or to patients with end-stage renal disease in dialysis facilities. MedPAC estimates that payments for separately billed drugs provided in hospital outpatient departments equaled about \$3.5 billion in 2009. We estimate that freestanding and hospital-based dialysis facilities billed Medicare an additional \$3.0 billion for drugs in 2009.

**Chart 10-2. Top 10 Part B drugs administered in physicians' offices or furnished by suppliers, by share of expenditures, 2009**

Drug name	Clinical indications	Competition	Percent of spending	Rank in 2008
Rituximab	Lymphoma, leukemia, rheumatoid arthritis	Sole source	7.8%	1
Ranibizumab	Age-related macular degeneration	Sole source	7.7	2
Bevacizumab	Cancer, age-related macular degeneration	Sole source	7.0	3
Infliximab	Rheumatoid arthritis, Crohn's disease	Sole source	5.8	4
Pegfilgrastim	Cancer	Sole source	4.7	5
Darbepoetin alfa	Anemia	Sole source	4.2	6
Epoetin alfa	Anemia	Multisource biologic	3.3	7
Oxaliplatin	Cancer	Sole source	3.0	8
Docetaxel	Cancer	Sole source*	2.6	10
Tacrolimus	Prevent organ transplant rejection	Multisource	2.6	Not on list

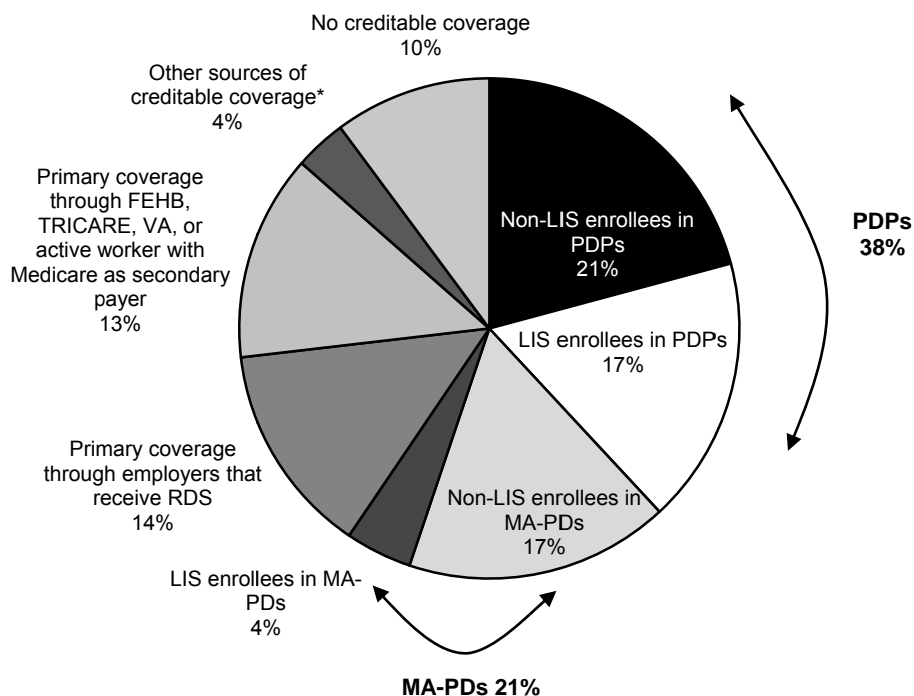
Note: Data do not include Part B drugs furnished in hospital outpatient departments or dialysis facilities.  
 \*Docetaxel was sole source in 2009, but generic versions have since become available.

Source: MedPAC analysis of Medicare claims data from CMS and information on drug and biologic approval information from the Food and Drug Administration website ([www.fda.gov](http://www.fda.gov)).

- Medicare covers more than 600 outpatient drugs under Part B, but spending is very concentrated. The top 10 drugs account for about 49 percent of all Part B drug spending.
- The seven highest expenditure products are biologics.
- Treatment for cancer dominates the list (7 of the top 10 drugs treat cancer or the side effects associated with chemotherapy) because most cancer drugs must be administered by physicians, a requirement for coverage of most Part B drugs.
- These rankings reflect Part B drugs administered in physicians' offices or furnished by suppliers.



**Chart 10-3. In 2010, about 90 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage**



Note: LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy), FEHB (Federal Employees Health Benefits program), VA (Department of Veterans Affairs). TRICARE is the health program for military retirees and their dependents.  
 \*Creditable coverage means drug benefits whose value is equal to or greater than that of the basic Part D benefit.

Source: CMS Management Information Integrated Repository, February 16, 2010; Office of Personnel Management; Department of Defense; Department of Veterans Affairs; CMS Coordination of Benefits Database; CMS Creditable Coverage Database.

- As of February 2010, CMS estimated that 34 million of the 46 million Medicare beneficiaries (73 percent) were either signed up for Part D plans or had prescription drug coverage through employer-sponsored plans under Medicare's retiree drug subsidy (RDS). (If an employer agrees to provide primary drug coverage to its retirees with an average benefit value that is equal to or greater in value than that of Part D (called creditable coverage), Medicare provides the employer with a tax-free subsidy for 28 percent of each eligible individual's drug costs that fall within a specified range of spending.)
- About 10 million beneficiaries (nearly 22 percent) receive Part D's low-income subsidy (LIS). Of these individuals, 6.4 million are dually eligible to receive Medicare and all Medicaid benefits offered in their state. Another 3.5 million qualified for extra help either because they receive benefits through the Medicare Savings Program or Supplemental Security Income Program or because they applied directly to the Social Security Administration. Among all LIS beneficiaries, about 8 million (17 percent of all Medicare beneficiaries) are enrolled in stand-alone prescription drug plans (PDPs) and 2 million (4 percent) are in Medicare Advantage–Prescription Drug plans (MA-PDs).
- Other enrollees in stand-alone PDPs numbered 9.7 million, or 21 percent of all Medicare beneficiaries. Another 7.9 million enrollees (17 percent) are in MA-PDs or other private Medicare health plans. Individuals whose employers receive Medicare's RDS numbered 6.4 million, or 14 percent. Those groups of beneficiaries directly affect Medicare program spending.
- Other Medicare beneficiaries have creditable drug coverage, but that coverage does not affect Medicare program spending. For example, 6.2 million beneficiaries (13 percent) receive drug coverage through the Federal Employees Health Benefits program, TRICARE, the Department of Veterans Affairs, or current employers because the individual is still an active worker. CMS estimates that another 1.6 million individuals have other sources of creditable coverage.
- An estimated 4.7 million beneficiaries (10 percent) have no creditable drug coverage.

**Chart 10-4. Parameters of the defined standard benefit increase over time**

	2006	2008	2009	2010	2011
Deductible	\$250.00	\$275.00	\$295.00	\$310.00	\$310.00
Initial coverage limit	2,250.00	2,510.00	2,700.00	2,830.00	2,840.00
Annual out-of-pocket threshold	3,600.00	4,050.00	4,350.00	4,550.00	4,550.00
Total covered drug spending at annual out-of-pocket threshold	5,100.00	5,726.25	6,153.75	6,440.00	6,447.50
Maximum amount of cost sharing in the coverage gap	2,850.00	3,216.25	3,453.75	3,610.00	3,607.50
Minimum cost sharing above the annual out-of-pocket threshold					
Copay for generic/preferred multisource drug	2.00	2.25	2.40	2.50	2.50
Copay for other prescription drugs	5.00	5.60	6.00	6.30	6.30

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent paid by the plan) until total covered drug spending reaches the initial coverage limit (ICL). Before 2011, enrollees exceeding the ICL were responsible for paying 100 percent of covered drug spending up to the annual out-of-pocket threshold. Beginning in 2011, enrollees face reduced cost sharing for the coverage gap. The amount for 2011 (\$6,447.50) is for an individual with no other sources of supplemental coverage filing only brand-name drugs during the coverage gap. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. The enrollee pays nominal cost sharing above the limit.

Source: CMS, Office of the Actuary.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a defined standard benefit structure. In 2011, it has a \$310 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches \$2,840 in total covered drug spending, and then a coverage gap until annual out-of-pocket spending reaches the annual threshold. Before 2011, enrollees were responsible for paying the full discounted price of covered drugs filled during the coverage gap. Because of changes made by the Patient Protection and Affordable Care Act of 2010, beginning in 2011, enrollees face reduced cost sharing of 50 percent for brand-name and 97 percent for generic drugs filled in the coverage gap. Enrollees with drug spending above \$4,550 would pay the greater of \$2.50 to \$6.30 per prescription or 5 percent coinsurance.
- The parameters of this defined standard benefit structure increase over time at the same rate as the annual increase in average total drug expenses of Medicare beneficiaries.
- Within certain limits, sponsoring organizations may offer Part D plans that have the same actuarial value as the defined standard benefit but a different benefit structure. For example, a plan may use tiered copayments rather than 25 percent coinsurance. Or a plan may have no deductible but use cost-sharing requirements that are equivalent to a rate higher than 25 percent. Both defined standard benefit plans and plans that are actuarially equivalent to the defined standard benefit are known as “basic benefits.”
- Once a sponsoring organization offers one plan with basic benefits within a prescription drug plan region, it may also offer a plan with enhanced benefits—basic and supplemental coverage combined.

# **Chart 10-5. Characteristics of Medicare PDPs**

	2010				2011			
	Plans		Enrollees as of February 2010		Plans		Enrollees as of February 2011	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	1,576	100%	16.6	100%	1,109	100%	17.0	100%
<b>Type of organization</b>								
National*	1,268	80	14.0	84	851	77	13.9	82
Other	308	20	2.7	16	258	23	3.0	18
<b>Type of benefit</b>								
Defined standard	172	11	1.6	9	133	12	1.3	8
Actuarially equivalent**	609	39	11.4	68	474	43	12.6	74
Enhanced	795	50	3.7	22	502	45	3.0	18
<b>Type of deductible</b>								
Zero	629	40	6.5	39	464	42	7.3	43
Reduced	374	24	2.1	12	197	18	2.1	13
Defined standard†	573	36	8.1	49	448	40	7.6	45
<b>Drugs covered in the gap</b>								
Some generics but no brand-name drugs	273	17	1.0	6	259	23	2.2	13
Some generics and some brand-name drugs	35	2	<0.1	0	106	10	0.3	2
None	1,268	80	15.7	94	744	67	14.4	85

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Excluded plans have 1.6 million enrollees in 2011 and had 1.1 million in 2010. Sums may not add to totals due to rounding.

\*Reflects total numbers of plans for organizations with at least 1 PDP in each of the 34 PDP regions.

\*\*Includes "actuarially equivalent standard" and "basic alternative" benefits.

†\$310 in both 2010 and 2011.

Source: MedPAC analysis of CMS landscape, premium, and enrollment data.

- Part D drew about 30 percent fewer stand-alone prescription drug plans (PDPs) into the field for 2011 than in 2010. Plan sponsors are offering 1,109 PDPs in 2011 compared with 1,576 in 2010. The reduction in plan offerings is primarily the result of regulations and guidance issued by CMS to differentiate more clearly between basic and enhanced benefit plans.
- In 2011, 77 percent of all PDPs are offered by sponsoring organizations that have at least 1 PDP in each of the 34 PDP regions. Plans offered by those national sponsors account for 82 percent of all PDP enrollment.
- Sponsors are offering a slightly smaller proportion of PDPs with enhanced benefits (basic plus supplemental coverage) for 2011 and a slightly larger proportion of benefits with actuarially equivalent benefits—having the same average value as the defined standard benefit but with alternative benefit designs. Most enrollees (74 percent) are in actuarially equivalent plans.
- A larger proportion of PDPs include some benefits in the coverage gap for 2011 than in 2010. Nearly a third of all plans with some gap coverage offer generics and brand-name drugs, compared with about 1 in 10 in 2010.
- In 2011, 85 percent of PDP enrollees are in plans that offer no additional benefits in the coverage gap. However, because of the changes made by the Patient Protection and Affordable Care Act of 2010, beginning in 2011, beneficiaries no longer face 100 percent coinsurance in the coverage gap (see Chart 10-4). In addition, many PDP enrollees receive Part D's low-income subsidy, which effectively eliminates the coverage gap.

# Chart 10-6. Characteristics of MA–PDs

	2010				2011			
	Plans		Enrollees as of February 2010		Plans		Enrollees as of February 2011	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	1,834	100%	7.0	100%	1,566	100%	8.6	100%
<b>Type of organization</b>								
Local HMO	1,038	57	4.7	68	936	60	5.7	66
Local PPO	452	25	0.9	13	445	28	1.7	20
PFFS	304	17	0.9	13	146	9	0.5	5
Regional PPO	40	2	0.4	6	39	2	0.7	8
<b>Type of benefit</b>								
Defined standard	78	4	0.1	1	51	3	0.1	1
Actuarially equivalent*	105	6	0.3	5	121	8	0.6	7
Enhanced	1,651	90	6.6	94	1,394	89	7.9	92
<b>Type of deductible</b>								
Zero	1,657	90	6.6	94	1,358	87	7.8	91
Reduced	66	4	0.2	3	123	8	0.5	6
Defined standard**	111	6	0.2	2	85	5	0.2	3
<b>Drugs covered in the gap</b>								
Some generics but no brand-name drugs	532	29	2.3	33	457	29	3.0	36
Some generics and some brand-name drugs	408	22	1.7	25	350	22	1.6	19
None	894	49	2.9	42	759	48	3.9	46

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Sums may not add to totals due to rounding.

\*Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

\*\*\$310 in both 2010 and 2011.

Source: MedPAC analysis of CMS landscape, premium, and enrollment data.

- There are 15 percent fewer Medicare Advantage–Prescription Drug plans (MA–PDs) in 2011 than in 2010. Sponsors are offering 1,566 MA–PDs compared with 1,834 the year before. The largest decrease was for private fee-for-service plans, making up 9 percent of all (unweighted) offerings in 2011 compared with 17 percent in 2010 (see Chart 9-1). Although the number of local HMOs also declined between 2010 and 2011, HMOs remain the dominant kind of MA–PD. The number of drug plans offered by both local and regional preferred provider organizations remained stable between 2010 and 2011.
- A larger share of MA–PDs than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 10-6 with Chart 10-5). In 2011, 45 percent of all PDPs had enhanced benefits compared with 89 percent of MA–PDs. In 2011, enhanced MA–PDs attracted 92 percent of total MA–PD enrollment.
- Most MA–PD plans have no deductible: 87 percent of MA–PD offerings in 2011 and 90 percent in 2010. MA–PDs with no deductible attracted about 91 percent of total MA–PD enrollment in 2011.
- MA–PDs are more likely than PDPs to provide some additional benefits in the coverage gap, although mostly for generics. In 2011, 51 percent of MA–PDs included some gap coverage—29 percent with some generics but no brand-name drug coverage and 22 percent with some generics and some brand-name drug coverage. Those plans account for 54 percent of MA–PD enrollment.

## Chart 10-7. Average Part D premiums

	2010 enrollment (in millions)	Average monthly 2010 premium weighted by 2010 enrollment	2011 enrollment (in millions)	Average monthly 2011 premium weighted by 2011 enrollment	Dollar change	Percentage change in weighted average premium
<b>PDPs</b>						
Basic coverage	13.0	\$34	13.9	\$33	–\$0.6	–2 %
Enhanced coverage	3.7	50	3.0	63	13.1	26
Any coverage	16.6	37	17.0	38	1.2	3
<b>MA–PDs, including SNPs*</b>						
Basic coverage	1.0	26	1.1	27	1.6	6
Enhanced coverage	7.0	13	7.6	12	–1.0	–8
Any coverage	8.0	14	8.7	14	–0.7	–5
<b>All plans</b>						
Basic coverage	14.0	33	15.0	33	–0.5	–1
Enhanced coverage	10.7	25	10.6	26	0.9	4
Any coverage	24.7	30	25.6	30	0.2	1

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNPs (special needs plans). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, demonstrations, and Part B-only plans.

\*Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA–PD premiums reflect rebate dollars (75 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services) that were used to offset Part D premium costs. Lower average premiums for enhanced MA–PD plans reflect a different mix of sponsoring organizations and counties of operation than MA–PDs with basic coverage.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

- On average, Part D enrollees pay \$30 per month in 2011, with premiums increasing by less than \$1 compared with 2010.
- The average prescription drug plan (PDP) enrollee pays \$38 per month, compared with \$37 in 2010—a 3 percent increase.
- Medicare Advantage–Prescription Drug plans (MA–PDs) can lower the part of their monthly premium attributable to Part D using rebate dollars—75 percent of the difference between the plan's payment benchmark and its bid for providing Part A and Part B services. MA–PDs may also enhance their Part D benefit with rebate dollars. Many MA–PDs use rebate dollars in these ways, resulting in more enhanced offerings and lower average premiums compared with PDPs.
- The portion of Medicare Advantage premiums attributable to prescription drug benefits remained flat (decrease of less than \$1) in 2011, with the average MA–PD enrollee paying \$14 per month.

**Chart 10-8. Number of PDPs qualifying as premium-free to LIS enrollees increased in 2011, even as overall number of PDPs declined**

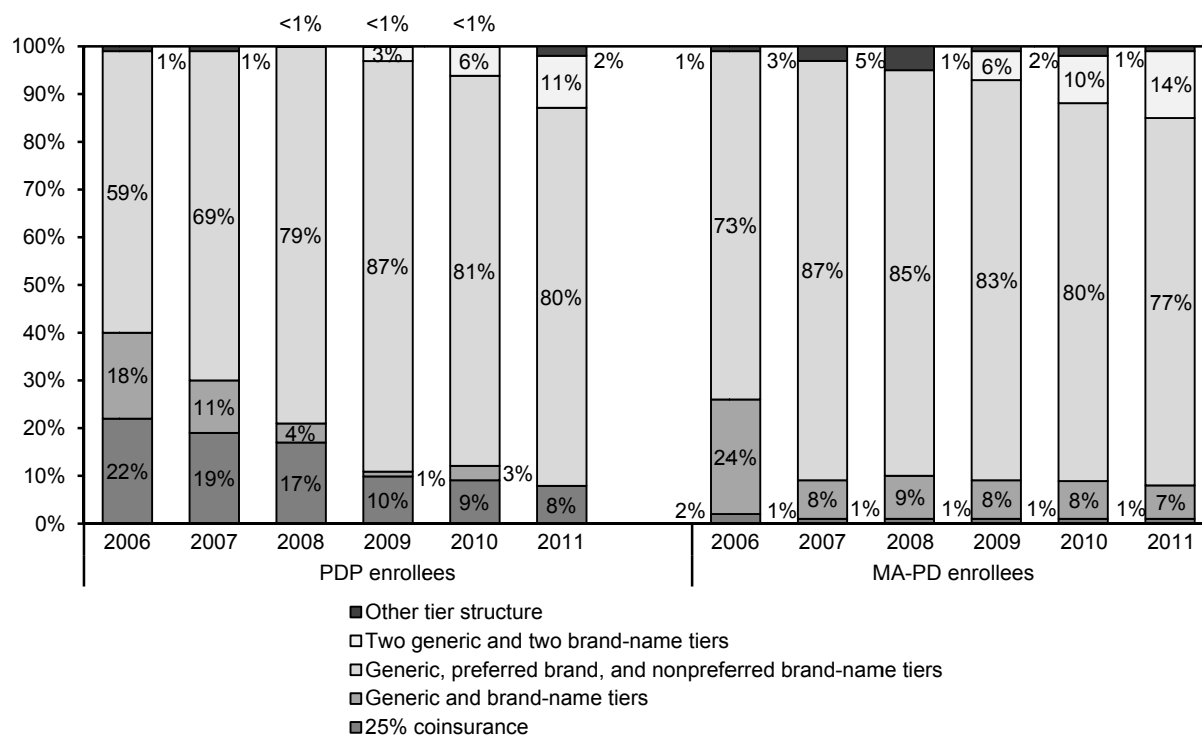
PDP region	State(s)	Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
		2010	2011	Difference	2010	2011	Difference
1	ME, NH	43	30	-13	4	7	3
2	CT, MA, RI, VT	48	34	-14	13	12	-1
3	NY	50	33	-17	11	11	0
4	NJ	47	33	-14	6	6	0
5	DC, DE, MD	45	33	-12	11	12	1
6	PA, WV	55	38	-17	11	12	1
7	VA	44	32	-12	11	10	-1
8	NC	47	33	-14	8	11	3
9	SC	47	34	-13	13	15	2
10	GA	45	32	-13	8	14	6
11	FL	49	32	-17	5	4	-1
12	AL, TN	46	34	-12	9	11	2
13	MI	46	35	-11	9	12	3
14	OH	46	34	-12	5	8	3
15	IN, KY	44	32	-12	9	14	5
16	WI	48	32	-16	10	10	0
17	IL	46	35	-11	10	10	0
18	MO	45	32	-13	13	5	-8
19	AR	49	34	-15	15	17	2
20	MS	45	32	-13	10	14	4
21	LA	45	32	-13	13	10	-3
22	TX	50	33	-17	11	12	1
23	OK	46	33	-13	10	10	0
24	KS	46	33	-13	9	12	3
25	IA, MN, MT, ND, NE, SD, WY	46	33	-13	8	10	2
26	NM	47	32	-15	8	8	0
27	CO	48	31	-17	6	7	1
28	AZ	46	30	-16	8	9	1
29	NV	46	31	-15	5	4	-1
30	OR, WA	44	32	-12	9	8	-1
31	ID, UT	48	35	-13	9	11	2
32	CA	47	33	-14	7	5	-2
33	HI	41	28	-13	7	6	-1
34	AK	41	29	-12	6	5	-1
	Total	1,576	1,109	-467	307	332	25

Note: PDP (prescription drug plan), LIS (low-income subsidy).

Source: MedPAC based on 2011 PDP landscape file and LIS enrollment data provided by CMS.

- The number of stand-alone prescription drug plans (PDPs) declined by 30 percent around the country, from 1,576 in 2010 to 1,109 in 2011. The median number of plans offered in each region is 33 compared with 46 in 2010.
- Hawaii had the fewest stand-alone PDPs with 28; the Pennsylvania–West Virginia region had the most with 38.
- In 2011, enrollees who receive Part D's low-income subsidy (LIS) have more options for PDPs in which they pay no premium. In 2011, 332 PDPs qualified to be premium-free to those enrollees, compared with 307 in 2010.
- Each region has at least four PDPs available to LIS enrollees at no premium.

**Chart 10-9. In 2011, most Part D enrollees are in plans that charge higher copayments for nonpreferred brand-name drugs**

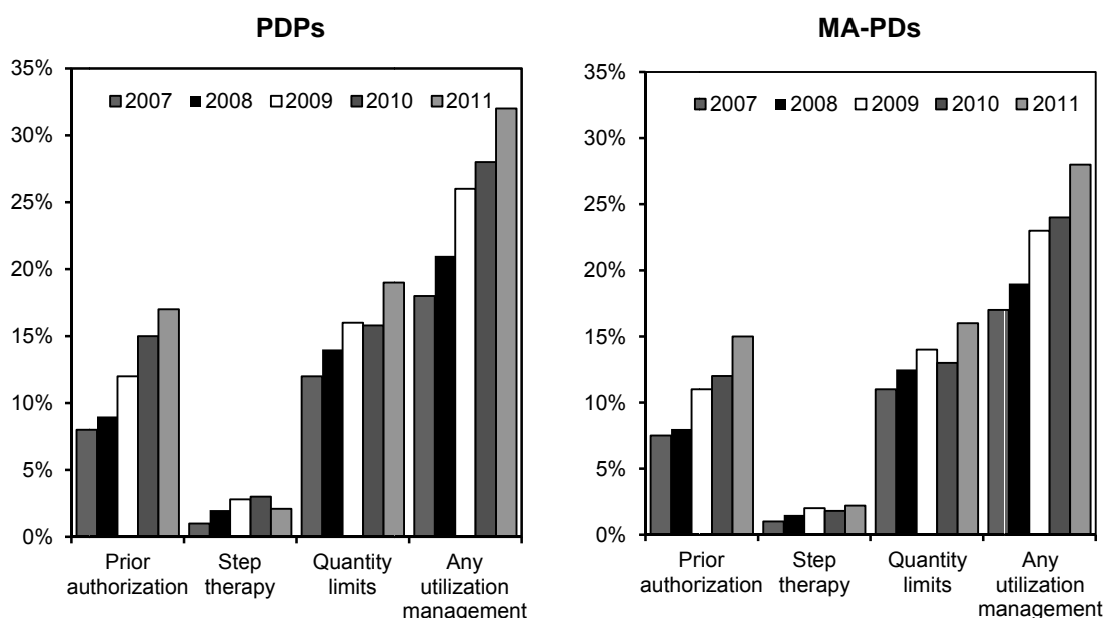


Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA-PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Sums may not add to totals due to rounding.

Source: MedPAC-sponsored analysis by NORC/Georgetown University/Social and Scientific Systems analysis of formularies submitted to CMS.

- In 2011, 80 percent of prescription drug plan (PDP) enrollees are in plans that distinguish between preferred and nonpreferred brand-name drugs; another 11 percent are in plans with two generic and two brand-name tiers. In 2006, only 59 percent of PDP enrollees were in plans with such distinctions. Over 90 percent of Medicare Advantage-Prescription Drug (MA-PD) plan enrollees are in such plans in 2010, up from 73 percent in 2006.
- For enrollees in PDPs that distinguish between preferred and nonpreferred brand-name drugs, the median copay in 2011 is \$42 for a preferred brand and \$78 for a nonpreferred brand. The median copay for generic drugs is \$7. For MA-PD enrollees, in 2011, the median copay is \$40 for a preferred brand, \$80 for a nonpreferred brand, and \$6 for a generic drug.
- Most plans, except those that use the defined standard benefit's 25 percent coinsurance for all drugs, also use a specialty tier for drugs that have a negotiated price of \$600 per month or more. In 2011, median cost sharing for a specialty tier drug is 30 percent among PDPs and 33 percent among MA-PDs. Enrollees may not appeal cost sharing for drugs in specialty tiers.

**Chart 10-10. In 2011, use of utilization management tools continues to increase for both PDPs and MA-PDs**



**Note:** PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA-PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Values reflect the percent of listed chemical entities that are subject to utilization management, weighted by plan enrollment. Prior authorization means that the enrollee must get preapproval from the plan before coverage. Step therapy refers to a requirement that the enrollee try specified drugs first before moving to other drugs. Quantity limits mean that plans limit the number of doses of a drug available to the enrollee in a given time period.

**Source:** MedPAC-sponsored analysis by NORC/Georgetown University/Social and Scientific Systems analysis of formularies submitted to CMS.

- The number of drugs listed on a plan's formulary does not necessarily represent beneficiary access to medications. Plans' processes for nonformulary exceptions, prior authorization (preapproval from plan before coverage), quantity limits (plans limit the number of doses of a particular drug covered in a given time period), and step therapy requirements (enrollees must try specified drugs before moving to other drugs) can affect access to certain drugs. For example, unlisted drugs may be covered through the nonformulary exceptions process, which may be relatively easy for some plans and more burdensome for others. Alternatively, on-formulary drugs may not be covered in cases in which a plan does not approve a prior authorization request. Also, a formulary's size can be deceptively large if it includes drugs that are no longer used in common practice.
- In 2011, the average enrollee in a stand-alone prescription drug plan faces some form of utilization management for 32 percent of drugs listed on a plan's formulary, compared with 28 percent for the average Medicare Advantage–Prescription Drug plan enrollee. The most common utilization management tool is quantity limits, followed by prior authorization, and then step therapy.



## Chart 10-11. Characteristics of Part D enrollees, 2009

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA-PD	LIS	Non-LIS
Beneficiaries* (in millions)	48.8	28.7	18.7	10.0	10.9	17.8
Percent of all Medicare	100%	59%	38%	21%	22%	37%
<b>Gender</b>						
Male	45%	41%	40%	43%	39%	42%
Female	55	59	60	57	61	58
<b>Race/ethnicity</b>						
White, non-Hispanic	78	74	76	72	59	84
African American, non-Hispanic	10	11	11	10	20	6
Hispanic	8	10	8	14	14	7
Asian	3	3	3	3	5	2
Other	2	2	2	1	2	1
<b>Age (years)</b>						
<65	21	23	27	16	42	12
65–69	24	22	20	26	14	26
70–74	18	18	17	20	13	21
75–79	15	15	14	16	11	17
80+	22	22	23	21	20	24
<b>Urbanicity**</b>						
Metropolitan	79	79	74	89	77	80
Micropolitan	12	12	15	7	13	11
Rural	8	9	11	4	10	8
Average risk score†	1.049	1.101	1.123	1.060	1.201	1.041
Percent relative to all Part D		100%	102%	96%	109%	95%

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Totals may not sum to 100 percent due to rounding.

\*Figures for Medicare and Part D include all beneficiaries with at least one month of enrollment in the respective program. A beneficiary is classified as LIS if that individual received Part D's LIS at some point during the year. For individuals who switch plan types during the year, classification into plan types is based on a greater number of months of enrollment.

\*\*Urbanicity based on the Office of Management and Budget's core-based statistical area. A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but less than 50,000) population. Fewer than 1 percent of Medicare beneficiaries were excluded due to an unidentifiable core-based statistical area designation.

†Part D risk scores are calculated by CMS using the prescription drug hierarchical condition category model developed before 2006. Risk scores shown here are not adjusted for LIS or institutionalized status (multipliers).

Source: MedPAC analysis of Medicare Part D denominator and enrollment files from CMS.

- In 2009, 28.7 million Medicare beneficiaries (59 percent) enrolled in Part D at some point in the year. Most of them (18.7 million) were in stand-alone prescription drug plans (PDPs), with 10 million in Medicare Advantage–Prescription Drug plans (MA-PDs). About 11 million enrollees received Part D's low-income subsidy (LIS).
- Compared with the overall Medicare population, Part D enrollees are more likely to be female and non-White. MA-PD enrollees are less likely to be disabled beneficiaries under age 65 and more likely to be Hispanic compared with PDP enrollees; LIS enrollees are more likely to be female, non-White, and disabled beneficiaries under age 65 compared with non-LIS enrollees.
- Patterns of enrollment by urbanicity for Part D enrollees were similar to the overall Medicare population with 79 percent in metropolitan areas, 12 percent in micropolitan areas, and the remaining 9 percent in rural areas.
- The average risk score for PDP enrollees is higher (1.123) than the average for all Part D enrollees (1.101), while the average risk score for MA-PD enrollees is lower (1.06).

# Chart 10-12. Part D enrollment trends, 2006–2009

	2006	2007	2008	2009
<b>Part D enrollment, in millions*</b>				
Total	24.5	26.1	27.5	28.7
By plan type				
PDP	17.7	18.3	18.6	18.7
MA–PD	6.8	7.8	8.9	10.0
By subsidy status				
LIS	10.2	10.4	10.7	10.9
Non-LIS	14.3	15.7	16.9	17.8
By race/ethnicity				
White, non-Hispanic	17.2	19.4	20.5	21.4
African American, non-Hispanic	2.6	2.9	3.1	3.2
Hispanic	2.2	2.5	2.7	2.8
Other	2.5	1.3	1.3	1.3
By age (years)				
<65	5.6	6.1	6.4	6.6
65–69	5.0	5.4	5.9	6.3
70–79	8.3	8.7	9.0	9.3
80+	5.6	6.0	6.3	6.4
<b>Enrollment growth, in percent</b>				
Total		7%	5%	4%
By plan type				
PDP		4	2	<1
MA–PD		14	14	12
By subsidy status				
LIS		2	2	2
Non-LIS		10	8	6
By race/ethnicity				
White, non-Hispanic		13	5	4
African American, non-Hispanic		13	5	4
Hispanic		14	6	6
Other		–49	6	<1
By age (years)				
<65		8	6	4
65–69		8	8	7
70–79		5	4	4
80+		7	4	3

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy).  
\*Figures include all beneficiaries with at least one month of enrollment. A beneficiary is classified as LIS if that individual received Part D's LIS at some point during the year. If a beneficiary was enrolled in both a PDP and an MA–PD plan during the year, that individual was classified into the type of plan with a greater number of months of enrollment. Numbers may not sum to totals due to rounding.

Source: MedPAC analysis of Medicare Part D denominator and enrollment files from CMS.

- Between 2006 and 2009, Medicare Advantage–Prescription Drug plan enrollment grew by more than 10 percent per year, compared with growth rates of less than 5 percent per year for prescription drug plans. During the same period, the number of enrollees receiving the low-income subsidy (LIS) remained relatively flat, while the number of non-LIS enrollees grew by 10 percent in 2007, 8 percent in 2008, and 6 percent in 2009.

# **Chart 10-13. Part D enrollment by region, 2009**

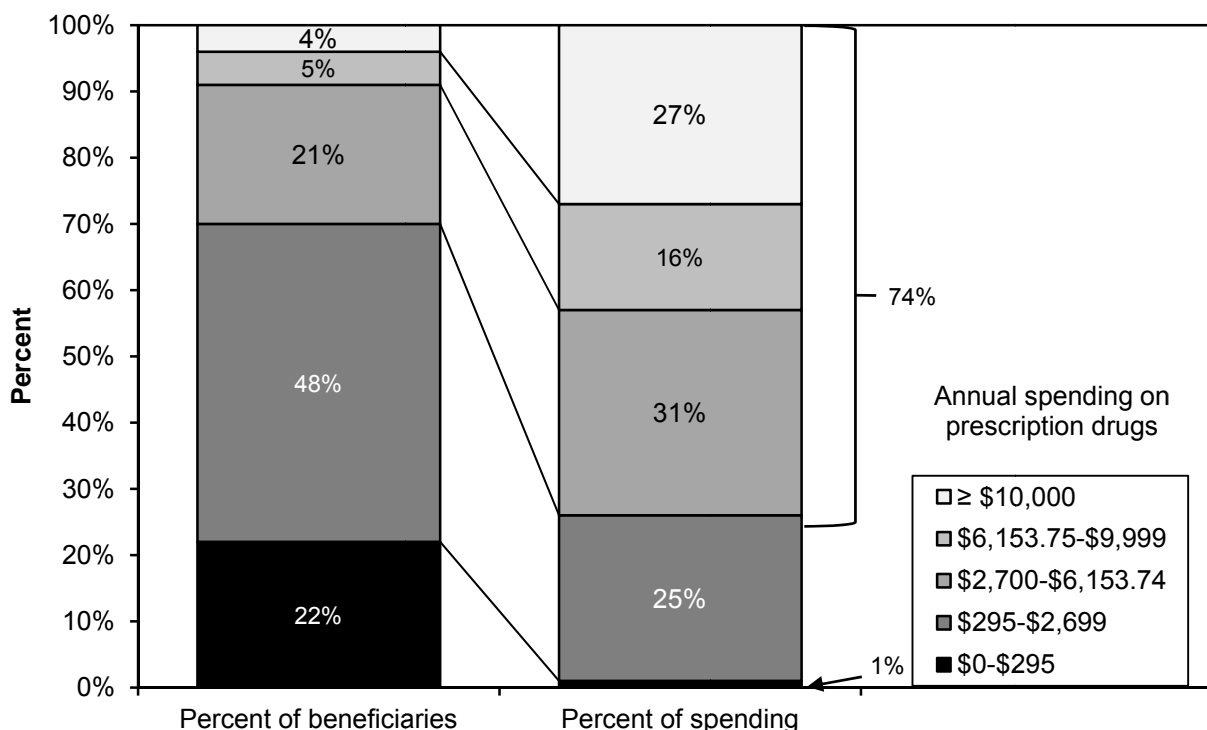
PDP region	State(s)	Percent of Medicare enrollment		Percent of Part D enrollment			
		Part D	RDS	Plan type		Subsidy status	
				PDP	MA–PD	LIS	Non-LIS
1	ME, NH	55%	13%	88%	12%	49%	51%
2	CT, MA, RI, VT	58	18	69	31	42	58
3	NY	59	19	57	43	46	54
4	NJ	53	22	81	19	35	65
5	DE, DC, MD	45	19	85	15	41	59
6	PA, WV	63	13	53	47	33	67
7	VA	52	11	80	20	38	62
8	NC	59	16	75	25	43	57
9	SC	54	16	79	21	45	55
10	GA	60	11	79	21	44	56
11	FL	60	13	54	46	34	66
12	AL, TN	62	12	67	33	47	53
13	MI	54	25	63	37	34	66
14	OH	54	25	65	35	36	64
15	IN, KY	56	18	83	17	41	59
16	WI	54	15	66	34	33	67
17	IL	55	19	87	13	38	62
18	MO	62	12	71	29	35	65
19	AR	61	9	83	17	45	55
20	MS	65	6	90	10	54	46
21	LA	62	13	67	33	49	51
22	TX	57	15	71	29	45	55
23	OK	60	8	80	20	38	62
24	KS	61	7	85	15	29	71
25	IA, MN, MT, NE, ND, SD, WY	66	9	74	26	27	73
26	NM	62	8	63	37	39	61
27	CO	59	13	49	51	29	71
28	AZ	61	12	43	57	31	69
29	NV	56	13	47	53	28	72
30	OR, WA	57	11	60	40	31	69
31	ID, UT	57	11	59	41	28	72
32	CA	69	10	52	48	39	61
33	HI	66	4	48	52	29	71
34	AK	39	25	97	3	61	39
	Mean	59	14	65	35	38	62
	Minimum	39	4	43	3	27	39
	Maximum	69	25	97	57	61	73

Note: PDP (prescription drug plan), RDS (retiree drug subsidy), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Definition of regions based on PDP regions used in Part D.

Source: MedPAC analysis of Part D enrollment data from CMS.

- Among Part D regions, in 2009, between 39 percent and 69 percent of all Medicare beneficiaries enrolled in Part D. Beneficiaries were more likely to enroll in Part D in regions where a low take-up rate for the retiree drug subsidy (RDS) was observed. For example, in Region 32 (California) and Region 33 (Hawaii), the shares of Medicare beneficiaries enrolled in Part D were 69 percent and 66 percent, respectively. In these two regions, 10 percent or fewer beneficiaries enrolled in employer-sponsored plans that received the RDS.
- A wide variation was seen in the shares of Part D enrollees who enrolled in prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug (MA–PD) plans across PDP regions. The pattern of MA–PD enrollment is generally consistent with enrollment in Medicare Advantage plans.
- The share of Part D enrollees receiving the low-income subsidy (LIS) ranged from 27 percent in Region 25 (Iowa, Minnesota, Montana, North Dakota, Nebraska, South Dakota, and Wyoming) to 61 percent in Region 34 (Alaska). In 26 of the 34 PDP regions, LIS enrollees account for 30 percent to 50 percent of enrollment. In two regions (Region 20 (Mississippi) and Region 34 (Alaska)), LIS enrollees account for more than half of Part D enrollment.

**Chart 10-14. The majority of Part D spending is incurred by fewer than half of all Part D enrollees, 2009**



Note: Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- Medicare Part D spending is concentrated among a subset of beneficiaries. In 2009, 30 percent of Part D enrollees had annual spending of \$2,700 or more, at which point enrollees were responsible for 100 percent of the cost of the drug until their spending reached \$6,153.75 under the defined standard benefit. These beneficiaries accounted for 74 percent of total Part D spending.
- The costliest 9 percent of beneficiaries, those with drug spending above the catastrophic threshold under the defined standard benefit, accounted for 43 percent of total Part D spending. Roughly three-quarters of beneficiaries with the highest spending receive Part D's low-income subsidy (see Chart 10-15). Spending on prescription drugs is less concentrated than Medicare Part A and Part B spending. In 2009, the costliest 5 percent of beneficiaries accounted for 38 percent of annual Medicare fee-for-service (FFS) spending and the costliest quartile accounted for 81 percent of Medicare FFS spending

**Chart 10-15. Characteristics of Part D enrollees, by spending levels, 2009**

	Annual drug spending		
	<\$2,700	\$2,700–\$6,153.75	>\$6,153.75
<b>Sex</b>			
Male	42%	38%	39%
Female	58	62	61
<b>Race/ethnicity</b>			
White, non-Hispanic	74	76	72
African American, non-Hispanic	11	11	13
Hispanic	10	9	10
Other	5	4	5
<b>Age (years)</b>			
<65	21	21	44
65–69	24	19	14
70–74	19	18	13
75–80	15	16	11
80+	22	27	19
<b>LIS status*</b>			
LIS	31	45	76
Non-LIS	69	55	24
<b>Plan type**</b>			
PDP	61	71	81
MA–PD	39	29	19

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). A small number of beneficiaries were excluded from the analysis because of missing data. Totals may not sum to 100 percent due to rounding.

\*A beneficiary is assigned LIS status if that individual received Part D's LIS at some point during the year.

\*\*If a beneficiary was enrolled in both a PDP and an MA–PD plan during the year, that individual was classified in the type of plan with a greater number of months of enrollment.

Source: MedPAC analysis of Medicare Part D prescription drug events data and Part D denominator file from CMS.

- In 2009, beneficiaries with annual drug spending of more than \$2,700 were more likely to be female than beneficiaries with annual spending below \$2,700 (62 percent and 61 percent compared with 58 percent).
- Beneficiaries with annual spending greater than \$6,153.75 are more likely to be disabled beneficiaries under age 65 and receive the low-income subsidy (LIS) compared with those with annual spending below \$2,700.
- Most beneficiaries with spending greater than \$6,153.75 are enrolled in stand-alone prescription drug plans (PDPs) (81 percent) compared with Medicare Advantage–Prescription Drug plans (MA–PDs) (19 percent). Beneficiaries with annual spending below \$2,700, on the other hand, are more likely to be in MA–PDs compared with those with higher annual spending (39 percent compared with 19 percent). This finding reflects the fact that most LIS enrollees are more costly on average and are in PDPs.

# **Chart 10-16. Part D spending and utilization per enrollee, 2009**

	Part D	Plan type		LIS status	
		PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)	\$73.8	\$54.6	\$19.2	\$40.5	\$33.2
Total number of prescriptions* (millions)	1,338	915	423	598	740
Average spending per prescription	\$55	\$60	\$45	\$68	\$45
<b>Per enrollee per month</b>					
Total spending	\$228	\$260	\$169	\$339	\$163
Out-of-pocket spending**	39	41	36	8	58
Plan liability†	136	150	111	192	104
Low-income cost sharing subsidy	52	68	21	140	N/A
Number of prescriptions*	4.1	4.4	3.7	5.0	3.6

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy), N/A (not applicable). Part D prescription drug event (PDE) records are classified into plan types based on the contract identification on each record. For purposes of classifying the PDE records by LIS status, monthly LIS eligibility information in Part D's denominator file was used. Estimates are sensitive to the method used to classify PDE records to each plan type and LIS status. Numbers may not sum to totals due to rounding.

\*Number of prescriptions standardized to a 30-day supply.

\*\*Out-of-pocket (OOP) spending includes all payments that count toward the annual OOP spending threshold.

†Plan liability includes plan payments for both covered and noncovered drugs.

Source: MedPAC analysis of Medicare Part D PDE data and denominator file from CMS.

- In 2009, gross spending on drugs for the Part D program totaled \$73.8 billion, with roughly three-quarters (\$54.6 billion) accounted for by Medicare beneficiaries enrolled in prescription drug plans (PDPs). Part D enrollees receiving the low-income subsidy (LIS) accounted for about 55 percent (\$40.5 million) of the total.
- The number of prescriptions filled by Part D enrollees totaled 1.34 billion, with nearly 70 percent (915 million) accounted for by PDP enrollees. The 38 percent of enrollees who received the LIS accounted for about 45 percent (598 million) of the total number of prescriptions filled.
- Medicare beneficiaries enrolled in Part D plans fill 4.1 prescriptions at \$228 per month on average. PDP enrollees have higher average monthly spending and more prescriptions filled compared with Medicare Advantage–Prescription Drug (MA–PD) plan enrollees.
- The average monthly plan liability for MA–PD enrollees (\$111) is considerably lower than that of PDP enrollees (\$150), while average monthly out-of-pocket (OOP) spending is similar for enrollees in both types of plans (\$36 vs. \$41). The average monthly low-income cost sharing subsidy is much lower for MA–PD enrollees (\$21) compared with PDP enrollees (\$68).
- Average monthly spending per enrollee for an LIS enrollee (\$339) is more than double that of a non-LIS enrollee (\$163), while the average number of prescriptions filled per month by an LIS enrollee is 5.0 compared with 3.6 for a non-LIS enrollee. LIS enrollees have much lower OOP spending, on average, than non-LIS enrollees (\$8 vs. \$58). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging \$140 per month.

**Chart 10-17. Part D risk scores vary across regions, by plan type and by LIS status, 2009**

PDP region	State(s)	Percent enrolled in PDPs vs. MA-PDs	Percent of Part D enrollees receiving LIS	Average risk score (RxHCC)				
				Part D	PDP	MA-PD	LIS	Non-LIS
All regions				Average absolute risk score				
				1.101	1.123	1.060	1.201	1.041
				Average normalized risk score (mean = 1.0)				
1	ME, NH	88%	49%	0.983	0.973	0.949	0.963	0.970
2	CT, MA, RI, VT	69	42	1.010	1.010	1.004	1.013	0.998
3	NY	57	46	1.033	1.056	1.011	1.019	1.022
4	NJ	81	35	1.042	1.042	0.987	1.036	1.052
5	DE, DC, MD	85	41	1.035	1.021	1.034	1.034	1.026
6	PA, WV	53	33	1.011	1.020	1.016	1.011	1.022
7	VA	80	38	1.004	0.996	0.992	1.005	1.004
8	NC	75	43	1.015	1.013	0.997	1.019	0.998
9	SC	79	45	1.026	1.009	1.057	1.008	1.023
10	GA	79	44	1.031	1.020	1.031	1.018	1.025
11	FL	54	34	1.054	1.065	1.056	1.060	1.059
12	AL, TN	67	47	1.043	1.031	1.065	1.028	1.030
13	MI	63	34	1.001	1.030	0.953	1.026	0.994
14	OH	65	36	1.030	1.041	1.008	1.056	1.017
15	IN, KY	83	41	1.020	1.014	0.989	1.018	1.012
16	WI	66	33	0.958	0.966	0.939	0.992	0.950
17	IL	87	38	0.989	0.980	0.955	0.987	0.991
18	MO	71	35	1.002	1.008	0.973	1.027	0.993
19	AR	83	45	0.996	0.983	1.003	0.972	0.998
20	MS	90	54	1.006	0.990	1.012	0.968	1.004
21	LA	67	49	1.019	1.022	1.008	0.992	1.015
22	TX	71	45	1.031	1.027	1.030	1.022	1.018
23	OK	80	38	0.993	0.986	0.980	0.988	0.996
24	KS	85	29	0.962	0.952	0.945	0.980	0.973
25	IA, MN, MT, NE, ND, SD, WY	74	27	0.913	0.908	0.908	0.950	0.918
26	NM	63	39	0.929	0.921	0.946	0.907	0.942
27	CO	49	29	0.919	0.914	0.941	0.945	0.924
28	AZ	43	31	0.961	0.929	1.009	0.959	0.977
29	NV	47	28	0.951	0.956	0.965	0.958	0.967
30	OR, WA	60	31	0.919	0.910	0.939	0.921	0.930
31	ID, UT	59	28	0.913	0.912	0.924	0.929	0.926
32	CA	52	39	0.955	0.967	0.956	0.943	0.960
33	HI	48	29	0.935	0.926	0.962	0.905	0.967
34	AK	97	61	0.929	0.911	0.931	0.896	0.902
	Mean	65	38	1.000	1.000	1.000	1.000	1.000
	Minimum	43	27	0.913	0.908	0.908	0.896	0.902
	Maximum	97	61	1.054	1.065	1.065	1.060	1.059

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]), RxHCC (prescription drug hierarchical condition category). Part D risk scores are calculated by CMS using the RxHCC model developed before 2006. Risk scores shown here are not adjusted for LIS or institutionalized status (multipliers) and are normalized so that the average across Part D enrollees in each group equals 1.0. If a beneficiary was enrolled in both a PDP and an MA-PD plan during the year, that individual was classified in the type of plan with a greater number of months of enrollment.

Source: MedPAC analysis of Medicare enrollment files from CMS.

(Chart continued next page)

## **Chart 10-17. Part D risk scores vary across regions, by plan type and by LIS status, 2009 (continued)**

- Under Part D, payments to stand-alone prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug plans (MA–PDs) are adjusted to account for differences in enrollees’ expected costs using the prescription drug hierarchical condition category (RxHCC) model developed before 2006. The RxHCC model uses age, gender, disability status, and medical diagnosis to predict Part D benefit spending. As is true for any risk-adjustment model, the RxHCC model does not explain all variation in future payments. The model may also produce higher scores in areas with high service use because there are more opportunities to make diagnoses in those areas and the RxHCC model uses diagnoses among other factors in its score.
- In 2009, the normalized average risk scores for Part D enrollees varied from 0.913 (Region 25 and Region 31) to 1.054 (Region 11), meaning that average expected costs per enrollee ranged from about 8.7 percent below the national average to about 5.4 percent above the national average across regions.
- The overall average risk score for PDP enrollees (1.123) is higher than that of MA–PD enrollees (1.06) and is consistently so across all regions, except in Arizona (Region 28), where most (57 percent) Part D enrollees are enrolled in MA–PDs. In contrast, normalized risk scores for both PDP and MA–PD enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) in only three regions: New Jersey (Region 4), Michigan (Region 13), and Arizona (Region 28).
- The overall average risk score for enrollees receiving the low-income subsidy (LIS) (1.201) is higher than that of non-LIS enrollees (1.041) and is consistently so across all regions. In contrast, normalized risk scores for both LIS and non-LIS enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) only in Hawaii (Region 33), where a relatively small share of enrollees receive the LIS (29 percent).



**Chart 10-18. Part D spending varies across regions even after controlling for prices and health status, 2009**

PDP region	State(s)	Percent enrolled in PDPs	Percent of Part D enrollees receiving LIS	Relative average Part D spending per capita*	
				Unadjusted	Adjusted**
1	ME, NH	88%	49%	1.02	0.97
2	CT, MA, RI, VT	69	42	1.04	1.01
3	NY	57	46	1.22	1.15
4	NJ	81	35	1.24	1.18
5	DE, DC, MD	85	41	1.11	0.99
6	PA, WV	53	33	1.04	1.08
7	VA	80	38	1.00	0.98
8	NC	75	43	1.11	1.05
9	SC	79	45	1.10	0.99
10	GA	79	44	1.06	0.96
11	FL	54	34	0.98	0.91
12	AL, TN	67	47	1.07	0.97
13	MI	63	34	1.02	0.96
14	OH	65	36	1.01	1.00
15	IN, KY	83	41	1.07	1.02
16	WI	66	33	0.95	1.04
17	IL	87	38	0.97	0.96
18	MO	71	35	1.01	1.01
19	AR	83	45	0.94	0.90
20	MS	90	54	1.03	0.93
21	LA	67	49	1.08	1.02
22	TX	71	45	1.01	0.92
23	OK	80	38	1.03	1.02
24	KS	85	29	0.94	1.02
25	IA, MN, MT, NE, ND, SD, WY	74	27	0.83	1.00
26	NM	63	39	0.78	0.86
27	CO	49	29	0.84	1.00
28	AZ	43	31	0.78	0.89
29	NV	47	28	0.80	0.92
30	OR, WA	60	31	0.88	1.01
31	ID, UT	59	28	0.89	1.05
32	CA	52	39	0.93	0.98
33	HI	48	29	0.93	1.12
34	AK	97	61	1.33	1.23
	Mean	65	38	1.00	1.00
	Minimum	43	27	0.78	0.86
	Maximum	97	61	1.33	1.23
National average spending				\$2,629	N/A

Note: PDP (prescription drug plan), LIS (low-income subsidy), N/A (not available).

\*Spending includes payments for ingredient costs and dispensing fees. Figures (per capita spending and index values) are for beneficiaries residing in a community setting only. Per capita based on full-year equivalent enrollment.

\*\*Adjusted spending controls for regional differences in prices, demographic characteristics (such as age, gender, disability, and LIS status), and beneficiaries' health status as measured by medical diagnoses used for prescription drug hierarchical condition categories.

Source: Acumen, LLC, analysis for MedPAC.

- Average per capita drug spending for drugs under Part D varies widely across prescription drug plan (PDP) regions. The national average per capita spending was \$2,629 in 2009. Relative to the national average, the unadjusted regional average per capita spending ranges from 78 percent (0.78) in New Mexico (Region 26) and Arizona (Region 28) to 133 percent (1.33) in Alaska (Region 34).
- Adjusting per capita drug spending for regional differences in prices and beneficiaries' health status reduces the variation across PDP regions: After the adjustment, the difference between minimum and maximum decreases from 0.55 (1.33 minus 0.78) to 0.37 (1.23 minus 0.86). Relative to the national average, the adjusted average per capita spending ranges from 86 percent (0.86) in New Mexico (Region 26) to 123 percent (1.23) in Alaska (Region 34).

**Chart 10-19. Top 15 therapeutic classes of drugs under Part D, by spending and volume, 2009**

Top 15 therapeutic classes by spending			Top 15 therapeutic classes by volume		
	Dollars			Prescriptions	
	Billions	Percent		Millions	Percent
Antihyperlipidemics	\$6.5	8.7%	Antihypertensive therapy agents	138.7	10.4%
Antipsychotics	5.9	8.0	Antihyperlipidemics	126.1	9.4
Diabetic therapy	5.5	7.5	Beta adrenergic blockers	84.6	6.3
Antihypertensive therapy agents	4.9	6.6	Diabetic therapy	83.3	6.2
Peptic ulcer therapy	4.6	6.3	Diuretics	75.8	5.7
Asthma/COPD therapy agents	4.3	5.8	Antidepressants	71.9	5.4
Antidepressants	3.0	4.1	Peptic ulcer therapy	64.3	4.8
Platelet aggregation inhibitors	3.0	4.0	Analgesics (narcotic)	63.5	4.7
Analgesics (narcotic)	2.9	3.9	Calcium channel blockers	56.3	4.2
Cognitive disorder therapy (antidementia)	2.7	3.7	Thyroid therapy	46.5	3.5
Anticonvulsant	2.6	3.5	Antibacterial agents	37.8	2.8
Antivirals	2.4	3.3	Asthma/COPD therapy agents	36.9	2.8
			Anticonvulsants	35.3	2.6
Calcium & bone metabolism regulators	1.8	2.5	Calcium & bone metabolism regulators	27.9	2.1
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	1.7	2.3	Analgesics (anti-inflammatory/antipyretic, non-narcotic)	25.6	1.9
Antibacterial agents	1.5	2.0			
Subtotal, top 15 classes	53.3	72.3	Subtotal, top 15 classes	974.5	72.8
Total, all classes	73.8	100.0	Total, all classes	1,337.9	100.0

Note: COPD (chronic obstructive pulmonary disease). Volume is the number of prescriptions standardized to a 30-day supply. Therapeutic classification based on the First DataBank Enhanced Therapeutic Classification System 1.0.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- In 2009, gross spending on prescription drugs covered by Part D plans totaled \$73.8 billion. The top 15 therapeutic classes by spending accounted for about 72 percent of the total.
- More than 1.3 billion prescriptions were dispensed in 2009, with the top 15 therapeutic classes by volume accounting for about 73 percent of the total.
- Eleven therapeutic classes are among the top 15 based on both spending and volume. Central nervous system agents (antipsychotics, anticonvulsants, and antidepressants) dominate the list by spending, accounting for over one-fifth of the spending, while cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents, beta adrenergic blockers, calcium channel blockers, and diuretics) dominate the list by volume, accounting for nearly 50 percent of the prescriptions in the top 15 therapeutic classes.

**Chart 10-20. Generic dispensing rate for the top 15 therapeutic classes, by plan type, 2009**

By order of aggregate spending	PDP share of all prescriptions	Generic dispensing rate		
		All	PDPs	MA-PDs
Antihyperlipidemics	64%	61%	56%	69%
Antipsychotics	84	38	37	39
Diabetic therapy	66	60	58	66
Antihypertensive therapy agents	64	72	70	76
Peptic ulcer therapy	69	71	67	79
Asthma/COPD therapy agents	72	9	10	7
Antidepressants	72	77	75	81
Platelet aggregation inhibitors	69	8	7	9
Analgesics (narcotic)	73	93	93	94
Cognitive disorder therapy (antidementia)	75	4	3	4
Anticonvulsant	76	80	79	83
Antivirals	77	25	22	35
Calcium & bone metabolism regulators	66	58	56	64
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	67	81	79	85
Antibacterial agents	70	88	87	89
All therapeutic classes	68	70	69	74

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]), COPD (chronic obstructive pulmonary disease). Shares are calculated as a percent of all prescriptions standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0. Generic dispensing rate is defined as the proportion of generic prescriptions dispensed within a therapeutic class. Part D prescription drug event records are classified as PDP or MA-PD records based on the contract identification on each record.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- In 2009, Part D enrollees in stand-alone prescription drug plans (PDPs) accounted for 68 percent of prescriptions dispensed under Part D. PDP enrollees accounted for a disproportionately high share of prescriptions for classes such as antipsychotics, anticonvulsants, and antivirals. Most of the prescriptions in these classes were taken by low-income subsidy (LIS) beneficiaries, of whom more than 80 percent are enrolled in PDPs.
- Overall, analgesics (narcotic) have the highest generic dispensing rate (GDR) (93 percent), followed by antibacterial agents (88 percent) and non-narcotic analgesics (81 percent) compared with 70 percent across all therapeutic classes.
- The GDR for PDP enrollees averages 69 percent across all therapeutic classes, compared with 74 percent for Medicare Advantage–Prescription Drug (MA-PD) plan enrollees. Across the 15 therapeutic classes, GDRs for PDP enrollees were generally lower than for MA-PD enrollees with the exception of agents for asthma/chronic obstructive pulmonary disease therapy.
- There were large differences in GDRs for PDPs and MA-PDs. The largest differences were for antihyperlipidemics and antivirals, with a 13 percentage point difference. Some of the difference in the GDRs reflects the fact that most beneficiaries receiving the LIS are in PDPs. On average, LIS enrollees are less likely to take a generic medication in a given therapeutic class (see Chart 10-21).

**Chart 10-21. Generic dispensing rate for the top 15 therapeutic classes, by LIS status, 2009**

By order of aggregate spending	LIS share of prescriptions	Generic dispensing rate		
		All	LIS	Non-LIS
Antihyperlipidemics	35%	61%	56%	63%
Antipsychotics	83	38	37	40
Diabetic therapy	48	60	53	67
Antihypertensive therapy agents	36	72	70	73
Peptic ulcer therapy	51	71	66	76
Asthma/COPD therapy agents	58	9	11	6
Antidepressants	53	77	74	80
Platelet aggregation inhibitors	43	8	7	9
Analgesics (narcotic)	59	93	92	95
Cognitive disorder therapy (antidementia)	51	4	3	5
Anticonvulsant	64	80	78	83
Antivirals	67	25	16	43
Calcium & bone metabolism regulators	34	58	53	61
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	49	81	82	81
Antibacterial agents	45	88	86	89
All therapeutic classes	45	70	68	72

Note: LIS (low-income subsidy), COPD (chronic obstructive pulmonary disease). Shares are calculated as a percent of all prescriptions standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification system 1.0. Generic dispensing rate is defined as the proportion of generic prescriptions dispensed within a therapeutic class. Part D prescription drug event (PDE) records are classified as LIS or non-LIS records based on monthly LIS eligibility information in Part D's denominator file. Estimates are sensitive to the method used to classify PDE records as LIS or non-LIS.

Source: MedPAC analysis of Medicare Part D prescription drug event data and Part D denominator file from CMS.

- In 2009, Part D enrollees receiving the low-income subsidy (LIS) accounted for 45 percent of prescriptions dispensed under Part D. In 10 of 15 therapeutic classes ranked by spending, the share of prescriptions dispensed to LIS beneficiaries was greater than 45 percent, and in 3 classes the share was greater than 60 percent.
- The generic dispensing rate (GDR) for non-LIS beneficiaries averages 72 percent across all therapeutic classes, compared with 68 percent for LIS beneficiaries. Across the top 15 therapeutic classes, GDRs for non-LIS beneficiaries are higher than those for LIS beneficiaries in all but one class (asthma/chronic obstructive pulmonary disease therapy agents).
- There are large differences in GDRs across classes between LIS and non-LIS beneficiaries. The largest difference is for antivirals (27 percentage points). Some of the difference in the GDRs for this therapeutic class likely reflects differences in the mix of drugs taken between the two groups.

## Chart 10-22. Pharmacies participating in Part D, 2009

	Pharmacies	Prescriptions	Gross spending
Totals	65,283	1,337.9 million	\$73.8 billion
Pharmacy class			
Chain pharmacy	61.7%	61.2%	58.6%
Independent pharmacy	32.6	33.8	37.0
Franchise pharmacy	1.2	1.1	1.1
Government pharmacy	1.0	0.4	0.4
Alternate dispensing site*	3.4	3.2	2.6
Other**	N/A	0.3	0.3
Pharmacy type			
Retail†	91.4%	78.8%	77.4%
Long-term care	2.7	9.2	10.6
Mail order	0.2	7.3	6.2
Physician's office	1.0	<0.1	<0.1
Institution	1.1	0.4	0.5
MCO pharmacy	0.2	0.6	0.4
Clinic	1.4	0.9	0.9
Specialty pharmacy	0.2	2.1	2.9
Other††	1.8	0.7	1.0

Note: MCO (managed care organization), N/A (not available). Some pharmacies could not be classified because of missing and other data issues. Prescription size is standardized to a 30-day supply. Pharmacy class and type are based on 2009 National Council for Prescription Drug Programs classification.

\*Alternate dispensing site includes physician offices, emergency departments, urgent care centers, and rural health facilities.

\*\*Number of prescriptions and spending for other class include institutions and pharmacies that could not be classified because of missing and other data issues.

†Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.

††Other type includes the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacies, military/U.S. Coast Guard pharmacies, compounding pharmacies, and facilities specializing in intravenous infusion.

Number of prescriptions and spending for other type include pharmacies that could not be classified because of missing and other data issues.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- In 2009, more than 65,000 pharmacies dispensed prescription drugs to Medicare beneficiaries enrolled in Part D. Most pharmacies (61.7 percent) are chain pharmacies, followed by independent pharmacies (32.6 percent).
- Chain pharmacies account for about 60 percent of prescriptions and spending, while independent pharmacies account for about 34 percent of prescriptions and 37 percent of spending.
- Retail pharmacies account for more than 90 percent of the pharmacies and about 80 percent of prescriptions and spending. Long-term care pharmacies account for 2.7 percent of pharmacies, but about 9 percent of prescriptions and nearly 11 percent of spending. Mail-order pharmacies account for less than 1 percent of pharmacies but account for slightly over 7 percent of prescriptions and about 6 percent of spending.
- In 2009, specialty pharmacies account for over 2 percent of prescriptions and nearly 3 percent of spending, compared with fewer than 1 percent of prescriptions and spending in previous years.

**Chart 10-23. Prescriptions dispensed, by pharmacy characteristics and urbanicity, 2009**

	CBSA designation		
	Metropolitan	Micropolitan	Rural
Number of pharmacies	52,978	7,172	5,120
As percent of total	81.2%	11.0%	7.8%
Prescriptions dispensed			
By pharmacy location	81.1%	11.1%	7.5%
By beneficiary location	78.1	12.6	9.2
Pharmacy class and pharmacy location			
Chain pharmacy	63.6%	57.4%	43.2%
Independent pharmacy	31.4	38.9	53.6
Franchise pharmacy	0.9	2.3	1.8
Government pharmacy	0.3	0.6	0.7
Alternate dispensing site*	3.7	0.8	0.7
Pharmacy type and <u>pharmacy</u> location			
Retail**	75.6%	92.1%	95.9%
Long-term care	10.3	6.2	2.5
Mail order	9.0	<0.1	<0.1
Specialty pharmacy	2.6	0	0
Other†	2.6	1.7	1.6
Pharmacy type and <u>beneficiary</u> location			
Retail**	77.8%	80.6%	85.0%
Long-term care	9.4	9.4	7.1
Mail order	7.7	6.3	5.4
Specialty pharmacy	2.2	1.9	1.5
Other†	2.9	1.8	1.9

Note: CBSA (core-based statistical area). A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but fewer than 50,000) population. Fewer than 1 percent of prescription drug event records could not be classified because the CBSA designation could not be identified. Pharmacy class and type are based on the 2009 National Council for Prescription Drug Programs classification. Number of prescriptions is standardized to a 30-day supply. Totals may not sum to 100 percent due to rounding.

\*Alternate dispensing site includes physicians' offices, emergency departments, urgent care centers, and rural health facilities.

\*\*Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.

†Other type includes physicians' offices, institutions, managed care organization pharmacies, clinics, the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacies, military/U.S. Coast Guard pharmacies, compounding pharmacies, and facilities specializing in intravenous infusion.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

(Chart continued next page)

## **Chart 10-23. Prescriptions dispensed, by pharmacy characteristics and urbanicity, 2009 (continued)**

- In 2009, of the pharmacies that participated in Part D, 81 percent (52,978) were in metropolitan areas, about 11 percent (7,172) were in micropolitan areas, and the remaining 7.8 percent (5,120) were in rural areas. This distribution is similar to that of Part D enrollees (see Chart 10-11). Distributions of prescriptions dispensed followed similar patterns regardless of whether they were classified by pharmacy locations or beneficiary locations.
- In metropolitan areas, chain pharmacies account for about 64 percent of all prescriptions dispensed under Part D, while independent pharmacies account for slightly more than 30 percent of the prescriptions dispensed. In micropolitan areas, independent pharmacies account for a larger share of prescriptions dispensed (38.9 percent), but chain pharmacies still account for a majority of the prescriptions dispensed (57.4 percent). In rural areas, most prescriptions dispensed (53.6 percent) are accounted for by independent pharmacies.
- Retail pharmacies account for the largest share of prescriptions dispensed under Part D in all areas, but there are some differences. For example, in metropolitan areas, retail pharmacies account for 75.6 percent of prescriptions and roughly the same share of beneficiaries (77.8 percent) obtain their prescriptions at retail pharmacies. On the other hand, in micropolitan and rural areas more than 90 percent of prescriptions are accounted for by retail pharmacies, but beneficiaries residing in those areas obtain fewer than 90 percent (80.6 percent and 85 percent) of their medications at retail pharmacies.
- Long-term care pharmacies located in metropolitan areas account for a larger share of prescriptions (10.3 percent) compared with micropolitan areas (6.2 percent) and rural areas (2.5 percent). The prescriptions filled by beneficiaries residing in different areas do not vary as much; 9.4 percent are filled by beneficiaries in metropolitan areas compared with 9.4 percent and 7.1 percent filled by those in micropolitan and rural areas, respectively.
- Most mail-order pharmacies are located in metropolitan areas, and beneficiaries residing in metropolitan areas fill more prescriptions through mail-order pharmacies (7.7 percent) compared with those in micropolitan and rural areas (6.3 percent and 5.4 percent).

## Web links. Drugs

- Chapters in several of MedPAC's Reports to the Congress provide information on the Medicare Part D program, as does MedPAC's March 2010 Part D Data Book and Payment Basics series.

[http://medpac.gov/chapters/Mar11\\_Ch13.pdf](http://medpac.gov/chapters/Mar11_Ch13.pdf)  
[http://www.medpac.gov/chapters/Mar10\\_Ch05.pdf](http://www.medpac.gov/chapters/Mar10_Ch05.pdf)  
[http://www.medpac.gov/documents/Mar10\\_PartDDataBook.pdf](http://www.medpac.gov/documents/Mar10_PartDDataBook.pdf)  
[http://www.medpac.gov/chapters/Mar09\\_Ch04.pdf](http://www.medpac.gov/chapters/Mar09_Ch04.pdf)  
[http://www.medpac.gov/chapters/Mar08\\_Ch04.pdf](http://www.medpac.gov/chapters/Mar08_Ch04.pdf)  
[http://www.medpac.gov/chapters/Mar08\\_Ch05.pdf](http://www.medpac.gov/chapters/Mar08_Ch05.pdf)  
[http://www.medpac.gov/chapters/Jun07\\_Ch07.pdf](http://www.medpac.gov/chapters/Jun07_Ch07.pdf)  
[http://www.medpac.gov/chapters/Mar07\\_Ch04.pdf](http://www.medpac.gov/chapters/Mar07_Ch04.pdf)  
[http://www.medpac.gov/publications/congressional\\_reports/Jun06\\_Ch07.pdf](http://www.medpac.gov/publications/congressional_reports/Jun06_Ch07.pdf)  
[http://www.medpac.gov/publications/congressional\\_reports/Jun06\\_Ch08.pdf](http://www.medpac.gov/publications/congressional_reports/Jun06_Ch08.pdf)  
[http://www.medpac.gov/publications/congressional\\_reports/June05\\_ch1.pdf](http://www.medpac.gov/publications/congressional_reports/June05_ch1.pdf)  
[http://www.medpac.gov/publications/congressional\\_reports/June04\\_ch1.pdf](http://www.medpac.gov/publications/congressional_reports/June04_ch1.pdf)  
[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_09\\_PartD.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_PartD.pdf)

- Analysis of Medicare payment systems and follow-on biologics can be found in MedPAC's June 2009 Report to the Congress.

[http://www.medpac.gov/chapters/Jun09\\_Ch05.pdf](http://www.medpac.gov/chapters/Jun09_Ch05.pdf)

- Analysis of Medicare spending on Part B drugs can be found in MedPAC's January 2007 and January 2006 Reports to the Congress.

[http://www.medpac.gov/documents/Jan07\\_PartB\\_mandated\\_report.pdf](http://www.medpac.gov/documents/Jan07_PartB_mandated_report.pdf)  
[http://www.medpac.gov/publications/congressional\\_reports/Jan06\\_Oncology\\_mandated\\_report.pdf](http://www.medpac.gov/publications/congressional_reports/Jan06_Oncology_mandated_report.pdf)

- A series of Kaiser Family Foundation fact sheet data spotlights provide information on the Medicare Part D benefit.

<http://www.kff.org/medicare/rxdrugbenefits/partddataspotlights.cfm>

- CMS information on Part D.

<http://www.cms.gov/PrescriptionDrugCovGenIn/>  
<http://www.cms.hhs.gov/MCRAAdvPartDEnrolData/>  
[http://www.cms.gov/PrescriptionDrugCovGenIn/06\\_PerformanceData.asp#TopOfPage](http://www.cms.gov/PrescriptionDrugCovGenIn/06_PerformanceData.asp#TopOfPage)  
[http://www.cms.gov/PrescriptionDrugCovGenIn/09\\_ProgramReports.asp](http://www.cms.gov/PrescriptionDrugCovGenIn/09_ProgramReports.asp)



SECTION

# 11

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## **Other services**

**Dialysis**

**Hospice**

**Clinical laboratory**

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**Chart 11-1. Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing**

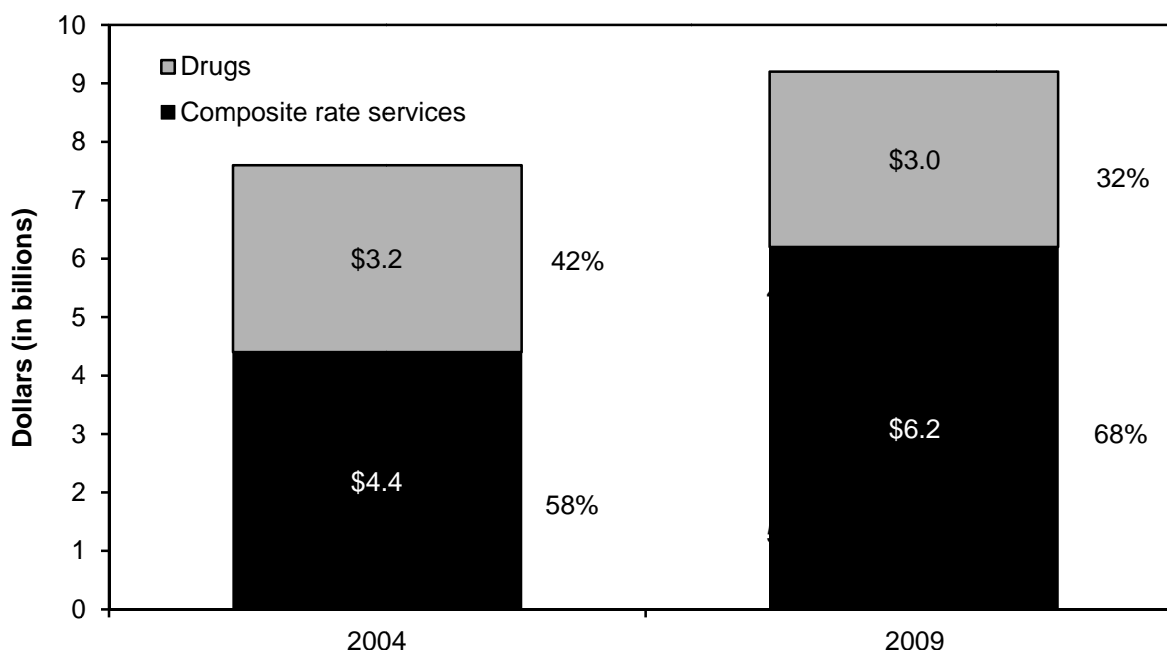
	2000	2005	2010	Average annual percent change	
				2000–2010	2005–2010
Total number of:					
Dialysis facilities	3,805	4,542	5,413	4%	4%
Hemodialysis stations	59,596	78,889	95,489	5	4
Mean number of hemodialysis stations	16	17	18	1	0.3
Percent of all facilities:					
Nonchain	N/A	24%	20%	N/A	–0.3
Affiliated with any chain	N/A	76	80	N/A	5
Affiliated with largest two chains	N/A	60	61	N/A	4
Hospital based	18%	14	10	–2	–3
Freestanding	82	86	90	5	4
Rural	25	25	24	4	3
Urban	75	75	76	4	4
For profit	78	78	82	4	5
Nonprofit	22	22	18	2	–1

Note: N/A (not available). Nonprofit includes facilities designated as either nonprofit or government.

Source: Compiled by MedPAC from the CMS facility survey file and Dialysis Compare file.

- Between 2000 and 2010, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 82 percent to 90 percent of all facilities, and for-profit facilities increased from 78 percent to 82 percent of all facilities.
- Two national for-profit chains own about 60 percent of all facilities and about 70 percent of all freestanding facilities.
- Between 2000 and 2010, the proportion of facilities located in rural areas has remained relatively constant.
- The number of facilities has increased 4 percent per year since 2000. The average size of a facility has increased slightly, as evidenced by the mean number of hemodialysis stations per facility, which increased from 16 in 2000 to 18 in 2010.

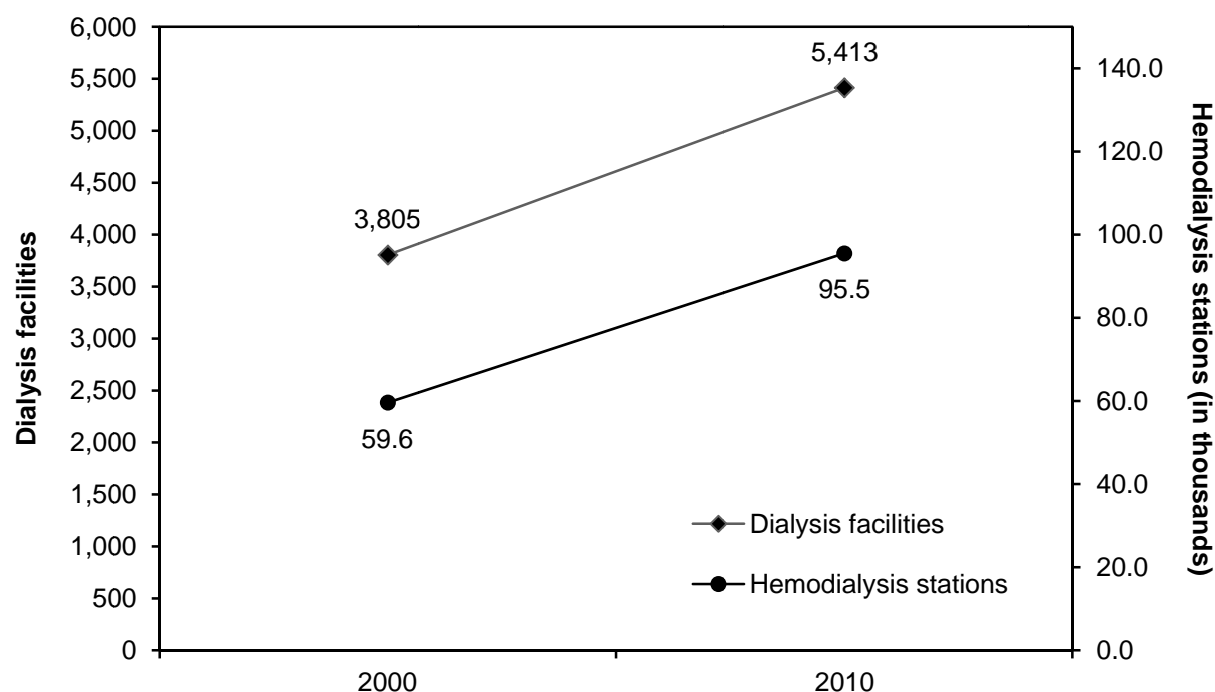
**Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2004 and 2009**



Source: Compiled by MedPAC from the 2004 and 2009 institutional outpatient files from CMS.

- Between 2004 and 2009, expenditures for composite rate services and dialysis drugs increased by about 4 percent per year. During this time, expenditures for composite rate services increased by 7 percent per year while expenditures for dialysis drugs decreased by 2 percent per year.
- Freestanding dialysis facilities treat most dialysis beneficiaries and accounted for 87 percent of expenditures in 2004 and 91 percent of expenditures in 2009. Between 2008 (reported in MedPAC's June 2010 Data Book) and 2009, total Medicare expenditures for dialysis services at freestanding dialysis facilities increased by 7 percent to \$8.3 billion.
- The decline in spending for dialysis drugs and the increase in the proportion of total dialysis spending for composite rate services is due to statutory and regulatory changes. Beginning in 2005, CMS implemented policies that increased Medicare's payment rate for composite rate services but lowered the rate for dialysis drugs.
- Despite the decrease in the drug payment rate, the total volume of most dialysis drugs (holding price constant) increased between 2004 and 2009 with one exception. Between 2007 and 2008, the volume of erythropoiesis-stimulating agents (ESAs), a class of drugs used to treat anemia, a common condition among dialysis patients, declined. The decline in the volume of ESAs was linked to new clinical evidence about the appropriate use of these drugs as well as changes in CMS's payment policies for ESAs.

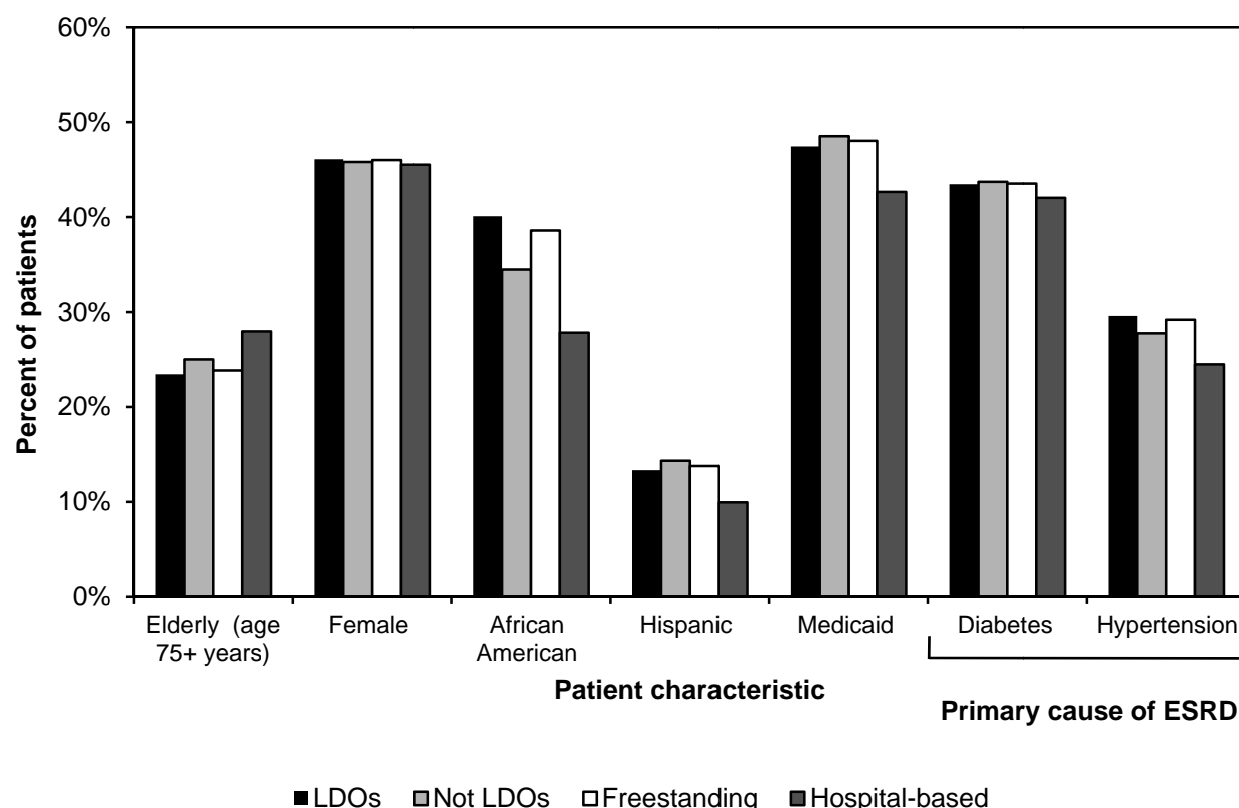
**Chart 11-3. Dialysis facilities' capacity increased between 2000 and 2010**



Source: Compiled by MedPAC from the 2000 Facility Survey file from CMS and the 2010 Dialysis Compare database from CMS.

- Providers have met the demand for furnishing care to an increasing number of dialysis patients by opening new facilities. In 2010, an average facility had about 18 hemodialysis stations.
- Between 2000 and 2010, the total number of dialysis facilities grew by about 4 percent annually, and the number of hemodialysis stations grew by 5 percent annually.

**Chart 11-4. Characteristics of dialysis patients, by type of facility, 2009**



Note: LDO (large dialysis organization), ESRD (end-stage renal disease). The facility types are not mutually exclusive.

Source: MedPAC analysis of dialysis claims files, denominator files, Renal Management Information System files, and Dialysis Compare files from CMS.

- Across the different provider types, the proportion of patients who are elderly, female, African American, Hispanic, and dually eligible for Medicaid does not differ by more than 1 percentage point between 2008 and 2009 (data not shown for 2008).
- This analysis suggests that providers did not change the mix of patients they cared for between 2008 and 2009, including the large dialysis organizations, which account for about 60 percent of all facilities.
- In 2008 and 2009, freestanding facilities were more likely than hospital-based facilities to treat African Americans and dual eligibles. Freestanding facilities account for about 90 percent of all dialysis facilities.

**Chart 11-5. The ESRD population is growing, and most ESRD patients undergo dialysis**

	1998		2003		2008	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	351.4	100%	449.4	100%	548.0	100%
Dialysis	255.2	73	320.5	71	382.3	70
In-center hemodialysis	225.1	64	291.8	65	350.8	64
Home hemodialysis	2.5	1	1.9	<1	3.8	1
Peritoneal dialysis	26.6	8	25.9	6	26.5	5
Unknown	1.1	<1	0.9	<1	1.2	<1
Functioning graft and kidney transplants	96.2	27	128.9	29	165.6	30

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding.

Source: Compiled by MedPAC from the United States Renal Data System.

- Persons with end-stage renal disease (ESRD) require either dialysis or a kidney transplant to maintain life. The total number of ESRD patients increased by 5 percent annually between 1998 and 2008.
- In hemodialysis, a patient's blood flows through a machine with a special filter that removes wastes and extra fluids. In peritoneal dialysis, the patient's blood is cleaned by using the lining of his or her abdomen as a filter. Peritoneal dialysis is usually performed in a patient's home.
- Most ESRD patients undergo hemodialysis administered in dialysis facilities three times a week. Between 1998 and 2008, the total number of in-center hemodialysis patients increased by 5 percent annually while the number of patients using the predominant home modality—peritoneal dialysis—remained about the same. Although only a small proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 4 percent annually during this time period.
- Functioning graft patients are patients who have had a successful kidney transplant. Patients undergoing kidney transplant may receive either a living or a cadaveric kidney donation. In 2008, 34 percent of the kidneys were from living donors and 66 percent were from cadaver donors.

**Chart 11-6. Diabetics, the elderly, Asian Americans, and Hispanics are among the fastest growing segments of the ESRD population**

	Percent of total in 2008	Average annual percent change 2003–2008
Total ( <i>n</i> = 547,982)	100%	4%
<b>Age (years)</b>		
0–19	1	2
20–44	18	1
45–64	45	5
65–79	27	4
80+	8	6
<b>Sex</b>		
Male	56	4
Female	44	4
<b>Race/ethnicity</b>		
White	61	4
African American	32	4
Native American	1	4
Asian American	5	7
Hispanic	15	7
Non-Hispanic	85	4
<b>Underlying cause of ESRD</b>		
Diabetes	38	5
Hypertension	24	4
Glomerulonephritis	15	2
Other causes	23	5

Note: ESRD (end-stage renal disease). Totals may not equal sum of the components due to rounding.

Source: Compiled by MedPAC from the United States Renal Data System.

- Among end-stage renal disease (ESRD) patients, 36 percent are over age 65. About 60 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 4 percent annually between 2003 and 2008. Among the fastest growing groups of patients are those who are over age 80, Asian Americans, and Hispanics.



**Chart 11-7. Aggregate margins vary by type of freestanding dialysis facility, 2009**

Type of facility	Percentage of Medicare payments going to freestanding facilities	Aggregate margin
All facilities	100%	3.1%
Urban	83	4.1
Rural	17	-1.4
LDOs	69	4.4
Non-LDOs	31	0.3

Note: LDO (large dialysis organization). Margins include payments and costs for composite rate services and injectable drugs.

Source: Compiled by MedPAC from 2009 cost reports and the 2009 institutional outpatient file from CMS.

- For 2009, the aggregate Medicare margin for composite rate services and injectable drugs was 3.1 percent.
- As in earlier years, we continue to see higher margins for facilities affiliated with the largest two chains. This finding stems from differences in the composite rate cost per treatment and drug payment per treatment. Compared with their counterparts, the composite rate cost per treatment was lower and the drug payment per treatment was higher for the two largest chains.
- In 2009, the gap between the Medicare margins for urban and rural facilities widened because of changes in the wage index and differences in the volume of drugs furnished across providers. The Commission will continue to monitor the adequacy of Medicare's payments for urban and rural facilities in upcoming years. Some rural facilities may benefit from the low-volume adjustment that is included in the new end-stage renal disease payment method that began in 2011.

**Chart 11-8. Medicare hospice use and spending grew substantially from 2000 to 2009**

	2000	2008	2009	Average annual percent change 2000–2008	Percent change 2008–2009
Beneficiaries in hospice	513,000	1,055,000	1,088,000	9.4%	3.1%
Medicare payments (in billions)	\$2.9	\$11.2	\$12.0	18.4	7.1
Average length of stay among decedents (in days)	54	83	86	5.5	3.6
Median length of stay among decedents (in days)	17	17	17	0.0	0.0

Note: Average length of stay is calculated for decedents who received hospice care at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims Standard Analytic File from CMS.

- The number of Medicare beneficiaries receiving hospice services more than doubled between 2000 and 2009, suggesting that access to hospice care has grown.
- The average length of stay among Medicare decedents who used hospice grew substantially over the decade, from 54 days in 2000 to 86 days in 2009. This growth reflects an increase in length of stay among hospice users with the longest stays while median length of stay remained unchanged (see Chart 11-12).
- Total Medicare payments to hospices quadrupled from 2000 to 2009 due to increased enrollment and longer lengths of stay.

**Chart 11-9. Hospice use increased across beneficiary groups from 2000 to 2009**

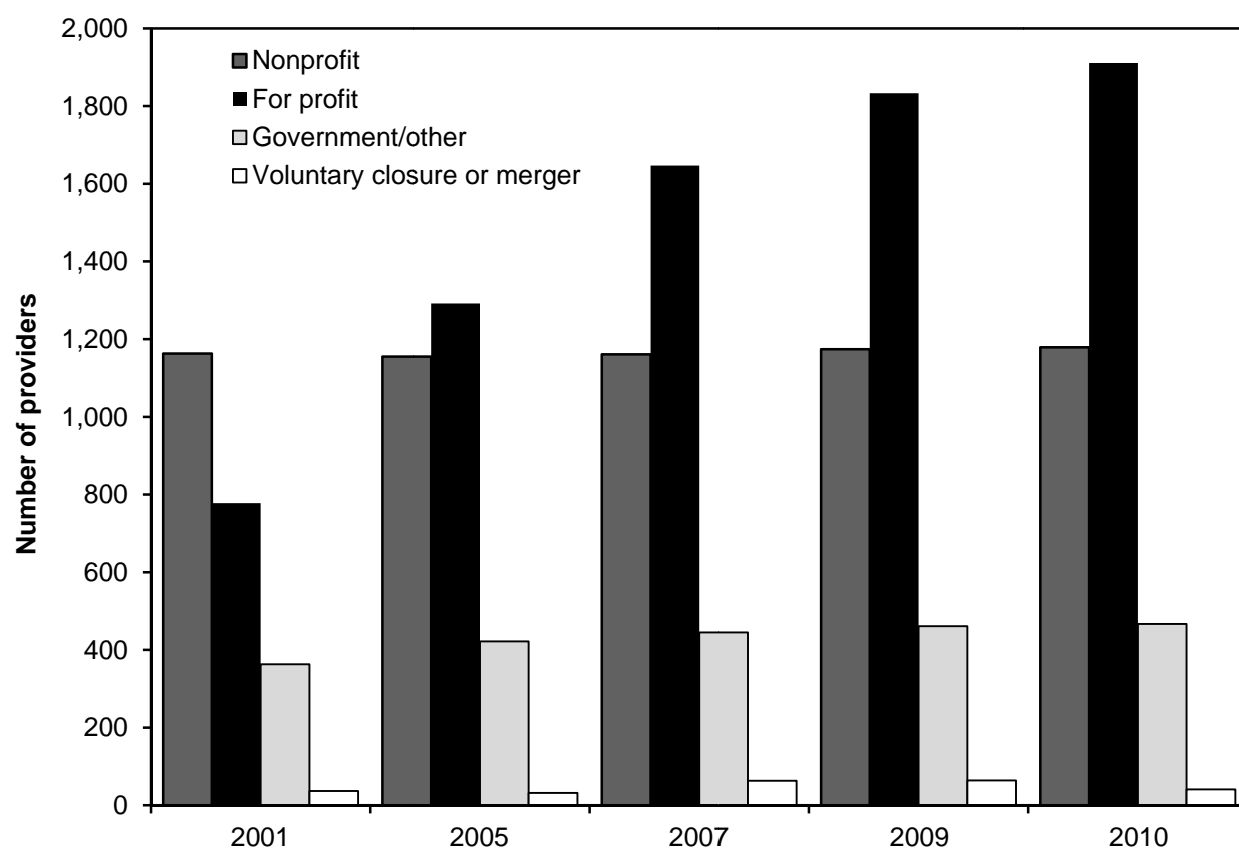
	Percent of decedents using hospice			Average annual percentage point change 2000–2008	Percentage point change 2008–2009
	2000	2008	2009		
All	22.9%	40.1%	42.0%	2.2	1.9
FFS beneficiaries	21.5	39.2	40.9	2.2	1.7
MA beneficiaries	30.9	43.9	46.0	1.6	2.0
Dual eligibles	17.5	35.8	37.5	2.3	1.6
Nondual eligibles	24.5	41.5	43.4	2.1	1.9
<b>Age (years)</b>					
<65	17.0	25.0	26.0	1.0	0.9
65–84	24.7	39.3	40.9	1.8	1.5
85+	21.4	45.3	48.0	3.0	2.6
<b>Race/ethnicity</b>					
White	23.8	41.8	43.7	2.3	1.9
Minority	17.2	30.2	32.1	1.6	1.7
<b>Gender</b>					
Male	22.4	36.7	38.5	1.8	1.7
Female	23.3	43.0	45.0	2.5	2.0
<b>Beneficiary location</b>					
Urban	29.4	41.7	43.5	1.5	1.8
Rural, adjacent to urban	19.2	36.2	38.0	2.1	1.8
Rural, nonadjacent to urban	16.7	31.5	33.6	1.9	2.1

Note: FFS (fee-for-service), MA (Medicare Advantage).

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

- Hospice use grew substantially in all beneficiary groups from 2000 to 2008 and continued to grow in 2009 for almost all beneficiary groups. Hospice use among Native North American beneficiaries declined one-tenth of a percentage point in 2009 (data not shown).
- Despite this growth, hospice use continued to vary by demographic and beneficiary characteristics. Medicare decedents who were older, White, female, Medicare Advantage enrollees, not dual eligible, or lived in an urban area were more likely to use hospice than their counterparts.

**Chart 11-10. Number of Medicare-participating hospices has increased, largely driven by for-profit hospices**



Source: CMS Providing Data Quickly Query. <https://pdq.cms.hhs.gov/index.jsp>.

- There were more than 3,500 Medicare-participating hospices in 2010. A majority of them were for-profit hospices.
- Between 2001 and 2010, the number Medicare-participating hospices grew by more than 1,000. For-profit hospices accounted for about 90 percent of that growth.
- In 2010, just over 40 hospices voluntarily exited the Medicare program due to a closure or merger, compared with just over 60 hospices annually from 2007 to 2009.

**Chart 11-11. Hospice cases and length of stay, by diagnosis, 2008**

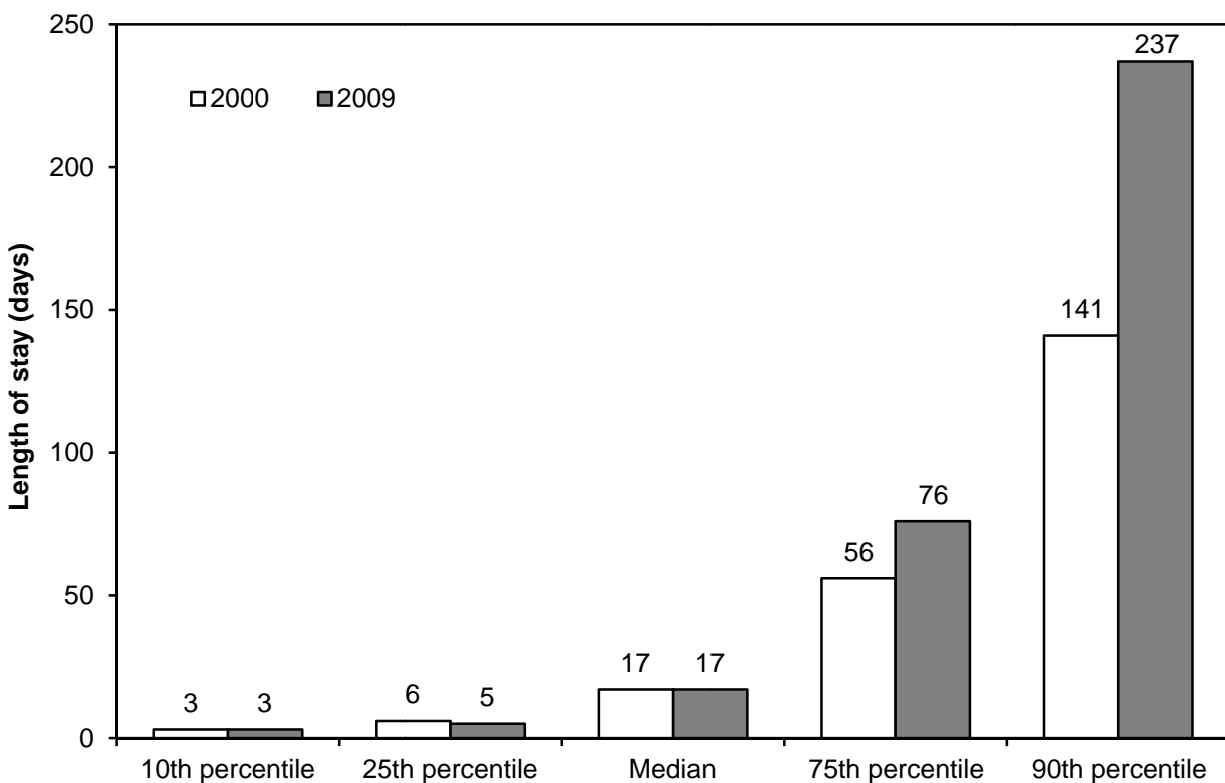
	Diagnosis share of total cases	Percent of cases with length of stay greater than 180 days
Cancer (except lung cancer)	22%	10%
Circulatory, except heart failure	10	19
Lung cancer	9	8
Debility, NOS	9	24
Heart failure	8	22
Alzheimer's and similar disease	6	34
Unspecific symptoms/signs	6	24
Chronic airway obstruction, NOS	6	26
Dementia	5	29
Organic psychoses	4	28
Genitourinary disease	3	5
Respiratory disease	3	11
Nervous system, except Alzheimer's	3	32
Other	1	12
Digestive disease	1	9
All	100	20

Note: NOS (not otherwise specified). Percent of cases by diagnosis does not sum to 100 due to the exclusion of patients with multiple diagnoses.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytical File from CMS.

- In 2008, the most common terminal diagnosis among Medicare hospice patients was cancer, accounting for nearly one-third of cases. The next most common diagnoses were heart failure and other circulatory conditions (18 percent of cases) and Alzheimer's disease, dementia, organic psychoses, and other neurological conditions (17 percent of cases).
- Length of stay varies by diagnosis. At least one-quarter of hospice patients with Alzheimer's disease, chronic airway obstruction, dementia, organic psychoses, and other neurological conditions had lengths of stay exceeding 180 days. Long hospice stays were least common among beneficiaries with cancer, genitourinary disease, and digestive disease.

**Chart 11-12. Long hospice stays are getting longer, while short stays remain virtually unchanged, 2000 and 2009**



**Note:** Data reflect hospice length of stay for Medicare decedents who used hospice at the time of death or before death. Length of stay reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

**Source:** MedPAC analysis of the denominator file and the Medicare Beneficiary Database from CMS.

- Long hospice stays have grown longer. For example, hospice length of stay at the 90th percentile grew from 141 days in 2000 to 237 days in 2009, an increase of more than 60 percent.
- Short stays in hospice have changed little since 2000. The median length of stay in hospice held steady at 17 days from 2000 to 2009. Hospice length of stay at the 25th percentile was 5 days in 2009, down slightly from 6 days in 2000.

**Chart 11-13. Hospice average length of stay among decedents, by beneficiary and hospice characteristics, 2008**

	Average length of stay among decedents (in days)
<b>Beneficiary</b>	
Diagnosis	
Cancer	53
Neurological	129
Heart/circulatory	76
Debility	94
COPD	104
Other	83
Site of service	
Home	86
Nursing facility	104
Assisted living facility	142
<b>Hospice</b>	
For profit	98
Nonprofit	68
Freestanding	86
Home health based	70
Hospital based	63

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2008 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytical File data, Medicare Beneficiary Database, Medicare hospice cost reports, and Provider of Services file data from CMS.

- Hospice average length of stay varies by both beneficiary and provider characteristics.
- Beneficiaries with neurological conditions, chronic obstructive pulmonary disease, and debility have the longest average length of stay while beneficiaries with cancer have the shortest average length of stay.
- Beneficiaries who receive hospice services in assisted living facilities and nursing facilities have a longer average length of stay than beneficiaries who receive care at home.
- For-profit hospices have a longer average length of stay than nonprofit hospices.
- Freestanding hospices have a longer average length of stay than home health–based or hospital-based hospices.

# **Chart 11-14. Hospice aggregate Medicare margins, 2002–2008**

	Percent of hospices (2008)	2002	2005	2006	2007	2008
All	100%	5.5%	4.6%	6.4%	5.8%	5.1%
Freestanding	67	9.2	7.2	9.7	8.7	8.0
Home health based	17	2.0	3.1	3.8	2.3	2.7
Hospital based	16	–9.1	–9.1	–12.7	–10.6	–12.2
For profit	52	14.9	9.9	12.0	10.4	10.0
Nonprofit	35	0.2	1.0	1.5	1.7	0.2
Urban	69	6.1	5.1	7.1	6.4	5.6
Rural	31	0.7	0.2	0.8	1.4	1.3
Below cap	90	N/A	5.1	7.0	6.1	5.5
Above cap	10	N/A	–0.8	0.3	2.5	1.0
Above cap (including cap overpayments)	10	N/A	20.7	20.7	20.5	19.0

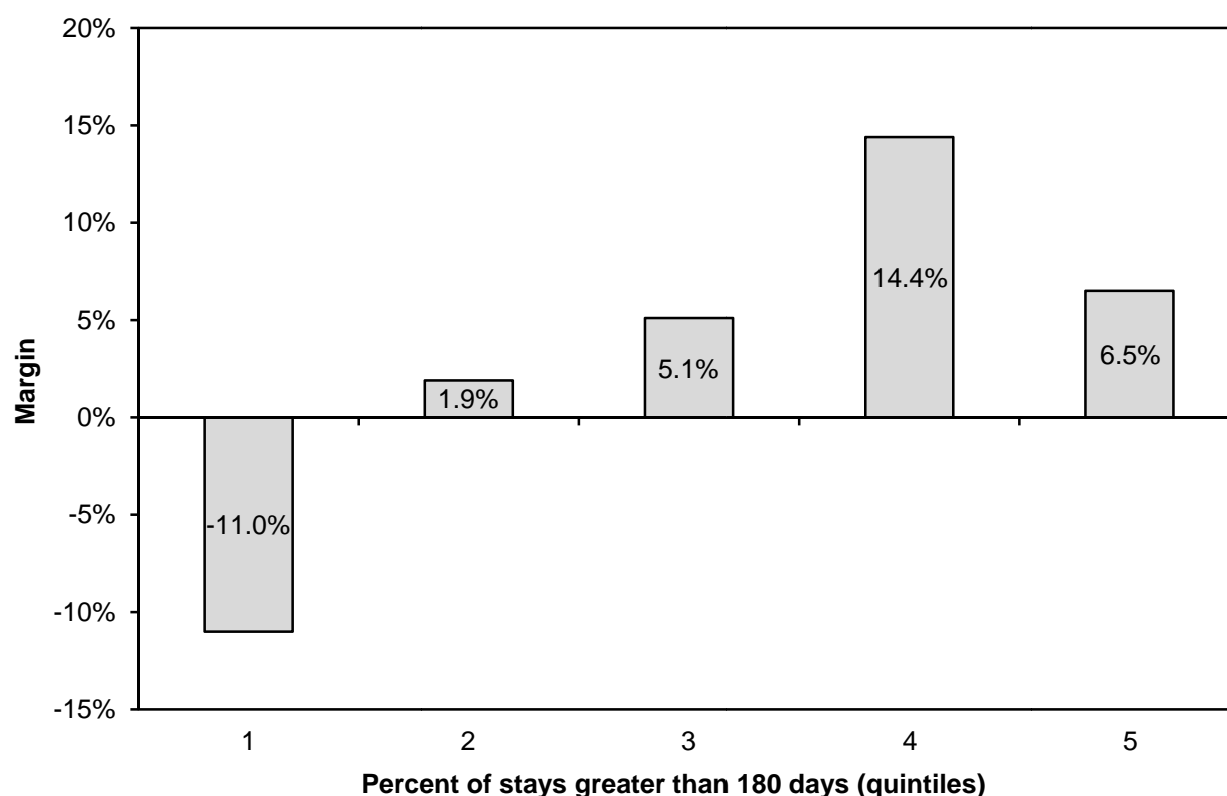
Note: N/A (not available). Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare-allowable, reimbursable costs. Percent of hospices does not sum to 100 by freestanding/provider-based categories and ownership categories because skilled nursing facility-based hospices and government hospices are not broken out separately.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims Standard Analytic File, and Medicare Provider of Services data from CMS.

- The aggregate Medicare margin oscillated in a relatively narrow range between 2002 and 2008. The margin was 5.1 percent as of 2008.
- Margin estimates do not include Medicare nonreimbursable costs, such as bereavement and volunteer costs (at most 1.5 percent and 0.3 percent of total costs, respectively). Margins also do not include the costs and revenues associated with fundraising.
- Freestanding hospices had higher margins than provider-based (home health– and hospital-based) hospices, in part due to differences in their indirect costs. Provider-based hospices' indirect costs are higher than those of freestanding providers and are likely inflated due to the allocation of overhead from the parent provider.
- In 2008, for-profit hospice margins were strongly positive at 10.0 percent. The aggregate margin for nonprofit hospices was 0.2 percent. The subset of nonprofit hospices that were freestanding had a higher margin of 3.2 percent (not shown in table).
- Hospices that exceeded the cap (Medicare's aggregate average per beneficiary payment limit) had a 19 percent margin before the return of the cap overpayments.



**Chart 11-15. Medicare margins are higher among hospices with more long stays, 2008**



Note: Margins exclude overpayments to hospices that exceed the cap on the average annual Medicare payment per beneficiary. Margins are calculated based on Medicare-allowable, reimbursable costs.

Source: MedPAC analysis of Medicare hospice cost reports and 100 percent hospice claims Standard Analytic File from CMS.

- Medicare's per-diem-based payment system for hospice provides an incentive for longer lengths of stay.
- Hospices with more long-stay patients generally have higher margins. Hospices in the lowest length-of-stay quintile have a margin of -11.0 percent compared with a 14.4 percent margin for hospices in the second highest length-of-stay quintile.
- Margins are somewhat lower in the highest length-of-stay quintile (6.5 percent) compared with the second highest quintile (14.4 percent) because some hospices in the highest quintile exceeded Medicare's aggregate payment cap and must repay the overage. Hospices exceeding the cap had a 19 percent margin before the return of overpayments (Chart 11-14).

**Chart 11-16. Hospices that exceeded Medicare’s annual payment cap, selected years**

	2002	2004	2005	2006	2007	2008*
Percent of hospices exceeding the cap	2.6%	5.8%	7.8%	9.4%	10.4%	10.2%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$470	\$749	\$755	\$731	\$612	\$571
Payments over the cap as a percent of overall Medicare hospice spending	0.6%	1.7%	2.2%	2.4%	2.0%	1.7%

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.  
 \*Due to a change in data availability, the 2008 estimates are based on a different methodology than the 2002–2007 estimates and are not precisely comparable to earlier years.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File data, Medicare hospice cost reports, Provider of Services file data from CMS, and CMS Providing Data Quickly system. Data on total spending for each fiscal year are from the CMS Office of the Actuary.

- The percent of hospices exceeding Medicare’s aggregate average per beneficiary payment limit, or “cap,” was 10.2 percent in 2008.
- Medicare payments over the cap represented 1.7 percent of total Medicare hospice spending in 2008.
- Estimates of hospices exceeding the cap for 2008 may not be comparable to estimates for prior years displayed in the chart because a new methodology was used in 2008. On the basis of additional analyses performed with the new methodology, we believe the percent of hospices exceeding the cap increased each year from 2002 to 2008, while total payments over the cap have declined since 2006.

**Chart 11-17. Length-of-stay and live discharge rates for above- and below-cap hospices, 2008**

Diagnosis	Percent of hospice users with stays exceeding 180 days		Live discharges as a percent of all discharges	
	Above-cap hospices	Below-cap hospices	Above-cap hospices	Below-cap hospices
All	41%	19%	44%	16%
Cancer	19	9	24	10
Neurological conditions	48	30	37	18
Heart/circulatory	44	18	52	16
Debility	43	23	49	21
COPD	47	24	52	20
Other	48	22	55	22

Note: COPD (chronic obstructive pulmonary disease). Length-of-stay data reflect the percent of hospice users in 2008 whose hospice length of stay was beyond 180 days.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File and denominator file from CMS.

- Above-cap hospices have substantially more patients with very long stays and more live discharges than below-cap hospices for all diagnoses.
- Between 44 percent and 48 percent of above-cap hospices' patients with neurological conditions, heart or circulatory conditions, or chronic obstructive pulmonary disease had stays exceeding 180 days compared with 18 percent to 30 percent at below-cap hospices.
- For all diagnoses, the live discharge rates at above-cap hospices were at least double and in some cases more than triple the rates at below-cap hospices. For example, among patients with heart or circulatory conditions, 52 percent of discharges at above-cap hospices were live discharges compared with 16 percent at below-cap hospices.

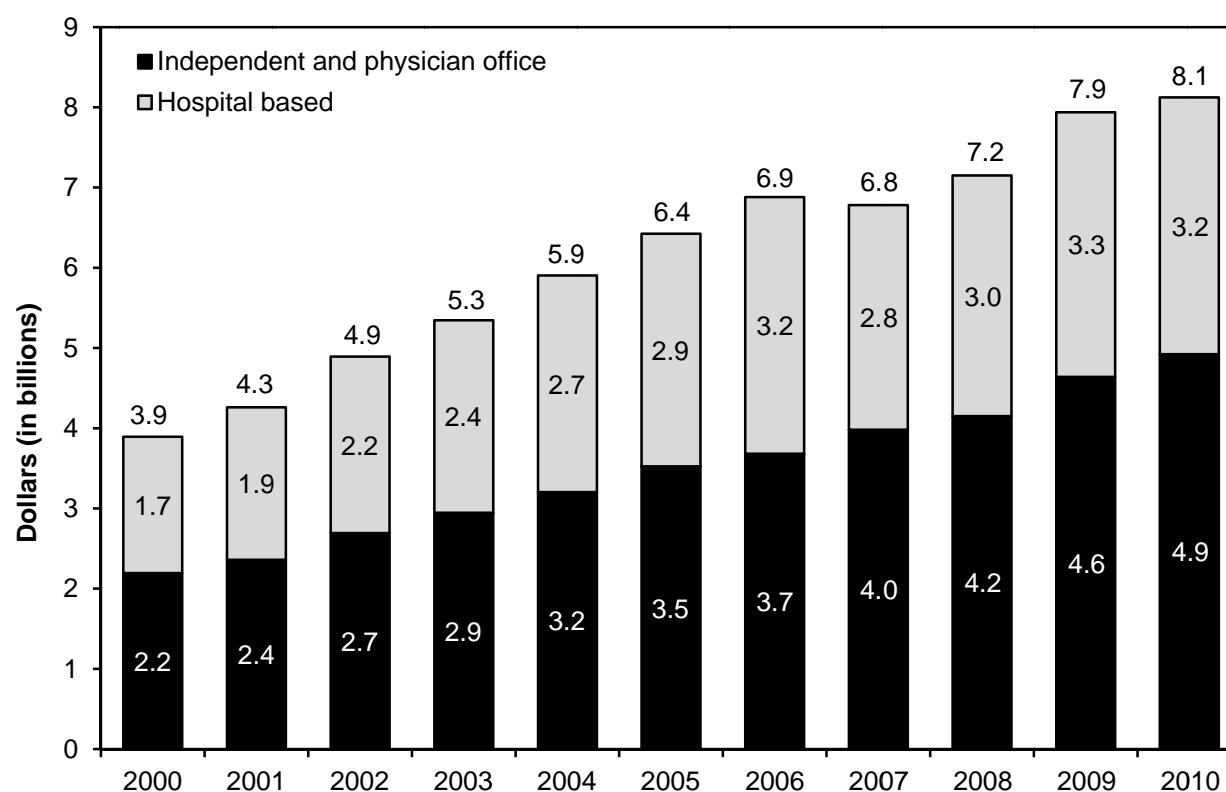
## Chart 11-18. Hospice cap is unrelated to use of hospice services across states, 2008

Top 10 states with highest hospice use rates	Percent of:	
	Decedents using hospice	Hospices exceeding the cap
Arizona	58%	25%
Utah	54	28
Florida	53	10
Iowa	50	0
Delaware	48	0
Colorado	48	2
Oregon	48	0
Rhode Island	46	0
Texas	45	11
Michigan	45	3

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, 100 percent hospice claims Standard Analytic File data, Medicare hospice cost reports from CMS and CMS Providing Data Quickly system.

- Six of the 10 states with the highest use of hospice among Medicare decedents have a very small percentage (0 percent to 3 percent) of hospices exceeding the cap. This finding demonstrates that high rates of hospice use can be achieved without hospices exceeding the cap.

**Chart 11-19. Medicare spending for clinical laboratory services, fiscal years 2000–2010**



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished in labs owned or operated by hospitals. Total spending appears on top of each bar. The segments of each bar may not sum to the totals on top of each bar due to rounding.

Source: CMS, Office of the Actuary.

- Medicare spending for clinical laboratory services grew by an average of 9.7 percent per year between 2000 and 2006. This growth was driven by rising volume, as there was only one increase in lab payment rates during those years. Spending declined by 0.5 percent in 2007 due to a drop in hospital-based lab spending and increased by 4.4 percent in 2008, 11.2 percent in 2009, and 2.4 percent in 2010.
- In 2010, Medicare spent \$8.1 billion (1.6 percent of total program spending) on clinical lab services.
- Hospital-based labs' share of total clinical lab spending increased from 44 percent in 2000 to 46 percent in 2006 but fell to 39 percent in 2009.

## Web links. Other services

### Dialysis

- More information on Medicare's payment system for outpatient dialysis services can be found in MedPAC's Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_dialysis.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_dialysis.pdf)

- The U.S. Renal Data System provides information about the incidence and prevalence of patients with renal disease, their demographic and clinical characteristics, and their spending patterns.

<http://www.usrds.org>

- The National Institute of Diabetes and Digestive and Kidney Diseases and the National Kidney Foundation provide health information about kidney disease for consumers.

<http://www.niddk.nih.gov/>

<http://www.kidney.org/>

- CMS provides specific information about each dialysis facility.

<http://www.medicare.gov/Dialysis/Home.asp>

- Chapter 6 of the MedPAC March 2011 Report to the Congress provides information about the financial performance of dialysis facilities.

[http://medpac.gov/chapters/Mar11\\_Ch06.pdf](http://medpac.gov/chapters/Mar11_Ch06.pdf)

- MedPAC's June 2005 Report to the Congress recommends changes to how Medicare pays for composite rate services and injectable drugs.

[http://www.medpac.gov/publications%5Ccongressional\\_reports%5CJune05\\_ch4.pdf](http://www.medpac.gov/publications%5Ccongressional_reports%5CJune05_ch4.pdf)

- MedPAC's October 2003 report describes how Medicare could modernize the outpatient dialysis payment system.

[http://www.medpac.gov/publications/congressional\\_reports/oct2003\\_Dialysis.pdf](http://www.medpac.gov/publications/congressional_reports/oct2003_Dialysis.pdf)

- MedPAC's comment on revisions to payment policies under the physician fee schedule for calendar year 2004 includes changes in how to pay for services furnished by nephrologists.

[http://medpac.gov/documents/100603\\_RevPhysFeeSched\\_CB\\_comment.pdf](http://medpac.gov/documents/100603_RevPhysFeeSched_CB_comment.pdf)

- MedPAC commented on CMS's proposed rule to implement provisions of the Medicare Improvements for Patients and Providers Act of 2008 that modernize the outpatient dialysis payment system by broadening the payment bundle in 2011 and implementing a quality incentive program in 2012.

<http://medpac.gov/documents/End%20Stage%20Renal%20Disease.pdf>

## Hospice

- More information on Medicare's payment system for hospice services can be found in MedPAC's Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_10\\_hospice.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_hospice.pdf)

- Additional information and analysis related to the Medicare hospice benefit and the financial performance of hospice providers can be found in Chapter 11 of MedPAC's March 2011 Report to the Congress.

[http://www.medpac.gov/chapters/Mar11\\_Ch11.pdf](http://www.medpac.gov/chapters/Mar11_Ch11.pdf)

- Additional analyses of Medicare hospice visit patterns can be found in the online appendix to the hospice chapters in the March 2011 and March 2010 Report to the Congress.

[http://www.medpac.gov/chapters/Mar11\\_Ch11\\_APPENDIX.pdf](http://www.medpac.gov/chapters/Mar11_Ch11_APPENDIX.pdf)

[http://www.medpac.gov/chapters/Mar10\\_Ch02E\\_APPENDIX.pdf](http://www.medpac.gov/chapters/Mar10_Ch02E_APPENDIX.pdf)

- Recommendations for reforms to the hospice payment system and steps to improve accountability and oversight of the benefit can be found in Chapter 6 of MedPAC's June 2009 Report to the Congress.

[http://www.medpac.gov/chapters/Mar09\\_ch06.pdf](http://www.medpac.gov/chapters/Mar09_ch06.pdf)

- Information and analysis related to the Medicare hospice benefit, with a specific focus on the hospice cap, can be found in Chapter 8 of MedPAC's June 2008 Report to the Congress.

[http://www.medpac.gov/chapters/Jun08\\_Ch08.pdf](http://www.medpac.gov/chapters/Jun08_Ch08.pdf)

- CMS maintains a variety of information related to the hospice benefit.

<http://www.cms.gov/center/hospice.asp>

- CMS also provides information on hospice for its beneficiaries.

<http://www.medicare.gov/Publications/Pubs/pdf/02154.pdf>

## **Clinical laboratory**

- More information on Medicare's payment system for clinical lab services can be found in MedPAC's Payment Basics series.

[http://www.medpac.gov/documents/MedPAC\\_briefs\\_Payment\\_Basics\\_10\\_clinical\\_lab.pdf](http://www.medpac.gov/documents/MedPAC_briefs_Payment_Basics_10_clinical_lab.pdf)

- Information about CMS's regulation of clinical laboratories, including the number and type of certified labs in the United States, can be found on the CMS website.

<http://www.cms.gov/CLIA>





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